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Mprsch_dp protein - protein database search, using Smith-Waterman algorithm
Run on: Thu Apr 1 07:24:54 1999; MasPar time 2.88 Seconds
Tabular output not generated. 67.419 Million cell updates/sec

Title: >US-08-927-939-1
Description: (1-12) from US08927939.pep
Perfect Score: 97
Sequence: 1 EICADPKOKWVQ 12

Scoring table:
PAM 150
Gap 15

Searched: 131922 segs, 16180660 residues
Post-processing: Minimum Match 0%
Listing first 100 summaries

Database: a-geneseq32
1:part1 2:part2 3:part3 4:part4 5:part5 6:part6 7:part7
8:part8 9:part9 10:part10 11:part11 12:part12 13:part13
14:part14 15:part15 16:part16 17:part17 18:part18
19:part19 20:part20 21:part21 22:part22 23:part23
24:part24 25:part25 26:part26 27:part27 28:part28

Statistics: Mean 18.390; Variance 63.736; scale 0.289
Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed.
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description	Pred. No.
1	97	100.0	66 24	W13598	Monocyte chemoattract	4.79e-03
2	97	100.0	67 24	W13599	Monocyte chemoattract	4.79e-03
3	97	100.0	68 24	W13597	Monocyte chemoattract	4.79e-03
4	97	100.0	69 14	R87678	des(2-8) MCP-1.	4.79e-03
5	97	100.0	69 24	W13596	Monocyte chemoattract	4.79e-03
6	97	100.0	76 15	R87680	Monocyte chemoattract	4.79e-03
7	97	100.0	76 21	W11131	Mature human monocyte	4.79e-03
8	97	100.0	76 5	R28660	MCF.	4.79e-03
9	97	100.0	76 5	P90292	Peptide from human g1	4.79e-03
10	97	100.0	76 14	R87675	(28-Asp) MCP-1.	4.79e-03
11	97	100.0	76 20	W09374	Monocyte chemotactic	4.79e-03
12	97	100.0	76 10	R53398	Sense MCP-1.	4.79e-03
13	97	100.0	76 14	R87677	(3-Ala) MCP-1.	4.79e-03
14	97	100.0	76 14	R87676	(24-Arg) MCP-1.	4.79e-03
15	97	100.0	77 15	R86859	Mature MCP-1.	4.79e-03
16	97	100.0	99 2	P95387	MCF.	4.79e-03
17	97	100.0	99 2	P95387	Human monocyte chemo-	4.79e-03
18	97	100.0	99 13	R70800	Chemoattractant prote	4.79e-03

19	97	100.0	99 14	R73914	Human monocyte chemo	4.79e-03
20	93	95.9	71 27	W22675	Drol3+ chemokine beta	1.28e-02
21	93	95.9	75 27	W22672	Bac 3 chemokine beta1	1.28e-02
22	93	95.9	77 27	W22672	Bac 2 chemokine beta1	1.28e-02
23	93	95.9	79 27	W22674	Droll1/2 chemokine bet	1.28e-02
24	93	95.9	82 27	W22671	Bac 1 chemokine beta1	1.28e-02
25	93	95.9	82 24	W17665	Stem cell mobilising	1.28e-02
26	93	95.9	98 18	R35087	Human chemokine beta-	1.28e-02
27	93	95.9	98 28	W30191	Monocyte chemotactic	1.28e-02
28	93	95.9	98 27	W22670	Human chemokine beta1	1.28e-02
29	93	95.9	99 2	R06398	Human MCP precursor	1.28e-02
30	92	94.8	76 5	R26580	Sequence of bovine p6	1.63e-02
31	92	94.8	99 5	R26581	Sequence of p6 precu	1.63e-02
32	90	92.8	67 14	R73915	Human monocyte chemo	2.65e-02
33	90	92.8	99 13	R70801	Chemoattractant prote	2.65e-02
34	90	92.8	109 2	R24353	Cytokine encoded by c	3.38e-02
35	89	91.8	82 29	W44721	Amino acid sequence o	3.38e-02
36	89	91.8	97 23	W10099	Human eotaxin.	3.38e-02
37	89	91.8	97 21	W00667	Pancreas expressed ch	3.38e-02
38	89	91.8	97 24	W14990	Human eosinocyte CC t	3.38e-02
39	84	86.6	73 13	R70252	Eotaxin chemoattracta	1.13e-01
40	84	86.6	96 24	W14991	Guinea pig eosinocyte	1.13e-01
41	82	84.5	72 13	R70804	Chemoattractant MCP-2	1.82e-01
42	82	84.5	109 29	W42072	Human MC proprotetin.	1.82e-01
43	82	84.5	109 26	W26655	Human beta-chemokine	1.82e-01
44	81	83.5	60 24	W17662	Stem cell mobilising	2.31e-01
45	81	83.5	89 14	R76127	Macrophage inflammato	2.31e-01
46	81	83.5	89 21	W07204	Human cytokine beta-1	2.31e-01
47	81	83.5	89 25	W23643	Human dendritic cell	2.31e-01
48	81	83.5	395 28	W23347	Novel murine CX3C 395	2.31e-01
49	81	83.5	395 28	W23347	Mouse neutrotactin.	2.31e-01
50	77	79.4	69 7	R39137	LD78 pHe28>Glu, Glu56	5.94e-01
51	77	79.4	70 24	W17661	Stem cell mobilising	5.94e-01
52	77	79.4	73 13	R70251	Eotaxin chemoattracta	5.94e-01
53	77	79.4	119 17	R85779	Human monocyte chemot	5.94e-01
54	77	79.4	119 22	W07845	Human monocyte chemot	5.94e-01
55	76	78.4	69 21	P90504	CDNA from murine cell	7.52e-01
56	76	78.4	69 21	W01802	Murine macrophage-der	7.52e-01
57	76	78.4	69 24	W16319	Inflammatory cytokine	7.52e-01
58	76	78.4	74 7	R38924	MIP-1alpha.	7.52e-01
59	76	78.4	79 24	W17664	Stem cell mobilising	7.52e-01
60	76	78.4	92 21	W01804	Murine macrophage-der	7.52e-01
61	76	78.4	92 21	P93590	Deduced sequence of M	7.52e-01
62	76	78.4	134 21	W00668	Pancreas expressed ch	7.52e-01
63	75	77.3	29 4	R20237	NAF(44-72) peptide in	9.50e-01
64	75	77.3	39 22	W04515	Interleukin-8(34-72)	9.50e-01
65	75	77.3	67 7	R38087	Modified human interl	9.50e-01
66	75	77.3	67 7	R38086	Modified human interl	9.50e-01
67	75	77.3	68 7	R38084	Modified human interl	9.50e-01
68	75	77.3	68 7	R38085	Modified human interl	9.50e-01
69	75	77.3	69 7	R38940	LD78 pHe28>Glu, Glu48	9.50e-01
70	75	77.3	69 7	R38082	Modified human interl	9.50e-01
71	75	77.3	72 27	W1519	Neutrophil chemoattract	9.50e-01
72	75	77.3	72 22	W04516	Interleukin(1-72) pro	9.50e-01
73	75	77.3	72 20	R99812	Chemokine-like protei	9.50e-01
74	75	77.3	72 11	R70183	Soluble interleukin-8	9.50e-01
75	75	77.3	72 23	R38080	Human interleukin-8 m	9.50e-01
76	75	77.3	72 23	W25708	Mutant human IL-8, S1	9.50e-01
77	75	77.3	72 23	W25707	Mutant human IL-8, Y1	9.50e-01
78	75	77.3	72 23	W25710	Mutant human IL-8, D4	9.50e-01
79	75	77.3	72 23	W25709	Mutant human IL-8, V4	9.50e-01
80	75	77.3	72 26	W51714	Sequence of a synthe	9.50e-01
81	75	77.3	72 23	W25713	Mutant human IL-8, F2	9.50e-01
82	75	77.3	72 23	W25701	Mutant human IL-8, R4	9.50e-01
83	75	77.3	72 23	R39806	Chemokine-like protei	9.50e-01
84	75	77.3	72 20	R39806	Chemokine-like protei	9.50e-01
85	75	77.3	72 1	P90913	Sequence of a synthe	9.50e-01
86	75	77.3	73 1	P90913	Human neutrophil acti	9.50e-01
87	75	77.3	73 20	R99818	Chemokine-like protei	9.50e-01
88	75	77.3	73 20	R99816	Chemokine-like protei	9.50e-01
89	75	77.3	73 20	R99816	Chemokine-like protei	9.50e-01
90	75	77.3	73 20	R99816	Chemokine-like protei	9.50e-01
91	75	77.3	73 20	R99815	Chemokine-like protei	9.50e-01

92	75	77.3	73	20	R99817	Chemokine-like protei	9.50e-01
93	75	77.3	73	20	R99814	Interleukin-8.	9.50e-01
94	75	77.3	77	7	P90017	Human neutrophil acti	9.50e-01
95	75	77.3	77.3	13	R13168	[Ala II-8]77 Leucocyt	9.50e-01
96	75	77.3	77.3	89	R75141	Human IL-1 α .	9.50e-01
97	75	77.3	89	12	R70994	Protein encoded by CD	9.50e-01
98	75	77.3	53	13	R75420	Human SDF-1-beta.	9.50e-01
99	75	77.3	99	1	R05239	Human neutrophil chem	9.50e-01
100	75	77.3	99	2	P93631	Amino acid sequence o	9.50e-01

ALIGNMENTS

```

RESULT      1
ID          W13598 standard; peptide: 66 AA.
AC          W13598;
DT          07-NOV-1997 (first entry)
DE          Monocyte chemoattractant protein analogue MCP-1 (10-76).
KM          Truncated monocyte chemoattractant protein-1; inhibitor;
KW          receptor binding; anti inflammatory; basophil; lymphocyte; allergy;
OS          chronic inflammatory disease; arthritis; arteriosclerosis;
SM          lung disease.
PN          Homo sapiens.
CA152141-A.
PD          20-DEC-1996.
PF          19-JUN-1995: 152141.
PR          19-JUN-1995: CA-152141.
(LEWIS/) LEWIS 1.
PT          Gong J;
DR          WPI: 97-165844/16.
PT          N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
PT          lacks MCP-1 activity and inhibits receptor binding, useful as
PT          anti-inflammatory agent
PS          Disclosure, Page 5: 27pp. English.
CC          The present sequence represents an analogue, MCP-1 (10-76), of monocyte
CC          chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC          C-terminal amino acids 1-9 of MCP-1, acts as an antagonist of MCP-1
CC          as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC          receptor. The analogue is useful as an anti-inflammatory agent to block
CC          the effects of MCP-1 which is an inflammatory mediator causing migration
CC          of monocytes and other cells e.g. basophils and lymphocytes into
CC          inflammation sites. MCP-1 has been implicated in allergic and chronic
CC          inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC          diseases. The analogue competes more effectively with MCP-1 for binding
CC          MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC          providing 50% inhibition of binding at a 25:1 ratio or less, compared
CC          with 75:1 for prior art mutant 7ND.
SQ          Sequence 66 AA;

Query Match      100.0%; Score 97; DB 24; Length 66;
Best Local Similarity 100.0%; Pred. No. 4.79e-03;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db      40 eicadpkqkxwvq 51
        |||||
QY      1 EICADPKOKKXWQ 12

RESULT      2
ID          W13599 standard; peptide: 67 AA.
AC          W13599;
DT          07-NOV-1997 (first entry)
DE          Monocyte chemoattractant protein analogue MCP-1 (11-76).
KM          Truncated monocyte chemoattractant protein-1; inhibitor;
KW          receptor binding; anti inflammatory; basophil; lymphocyte; allergy;
OS          chronic inflammatory disease; arthritis; arteriosclerosis;
SM          lung disease.
PN          Homo sapiens.
CA2152141-A.
PD          20-DEC-1996.
PF          19-JUN-1995: 152141.
PR          19-JUN-1995: CA-152141.
(LEWIS/) LEWIS 1.

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PI Gong J, Lewis I;
DR WPI: 97-165844/16.
PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
PT lacks MCP-1 activity and inhibits receptor binding, useful as
PT anti-inflammatory agent
PS Disclosure: Page 5: 27pp; English.
CC The present sequence represents an analogue, MCP-1 (11-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-10 of MCP-1, acts as an antagonist of MCP-1
CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammation sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, atherosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC providing 50% inhibition of binding at a 25:1 ratio or less, compared
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 67 AA;

```
Query Match      100.0%;    Score 97;   DB 24;   Length 67;
Best Local Similarity 100.0%;    Pred. No. 4,79e-03;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
```

RESULT	3
ID	W13597 standard; peptide; 68 AA.

DE 07-NOV-1997 (first entry)
DE Monocyte chemoattractant protein analogue MCP-1 (9-76).
RW Truncated monocyte chemoattractant protein-1; inhibitor;
RW receptor binding; anti-inflammatory; basophil; lymphocyte; allergy;
RW chronic inflammatory disease; arthritis; arteriosclerosis;
RW lung disease.
OS Homo sapiens.
PN CA2152141-A.
PD 20-DEC-1996.
PT 19-JUN-1995; 152141.
PT 19-JUN-1995; CA152141.
FA (LEMI/) LEWIS I.
P1 Gong J, Lewis I;
DR Wp; 97-165844/16.
PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
PT lacks MCP-1 activity and inhibits receptor binding, useful as
PT anti-inflammatory agent
PS Claim 7; Page 5; 27pp; English.
CC The present sequence represents an analogue, MCP-1 (9-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-8 of MCP-1, acts as an antagonist of MCP-1
CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammatory sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC providing 50% inhibition of binding at a 25:1 ratio or less, compared
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 68 AA;

Query Match	100.0%;	Score 97;	DB 24;	Length 68;
Best Local Similarity	100.0%;	Pred. No. 4,79e-03;		
Matches 12; Conservative		0;	Mismatches 0;	Indels 0;
Db	42 elcadpdkqkvwq	53		
ov	1 EICADPKRKQKWO	12		

RESULT 4
ID R87678 standard; protein; 69 AA.
AC R87678;
DE 21-FEB-1996 (first entry)
des(2-8) MCP-1.
KW monocyte chemoattractant protein; MCP-1; mutant; restenosis;
OS Homo sapiens.
FH Key
FT modified_site 2.3
FT /note- "amino acids 2-8 of the native protein have
FT been deleted between these residues"
FT disulfide_bond 4..29
FT disulfide_bond 5..45
PN MO9513295-A1.
PD 18-MAY-1995.
PE 07-NOV-1994;
PR 12-NOV-1993; US-152301.
PA (DAND) DANA FARBER CANCER INST INC.
PI Rollins B, Zhang YJ;
DR WPI: 95-215051/28.
PT Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are
PT capable of inhibiting the monocyte chemo-attractant activity of
PT endogenous MCP-1 and can be used to treat restenosis
PS Claim 4; Page 11; 22pp; English.
CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
CC that they inhibit the monocyte chemoattractant activity of endogenous
CC MCP-1, provided that the derivative has not been modified by the
CC substitution of 28-Tyr by leu and/or 30-Arg by Val. Preferred mutations
CC are: (1) substitution of 28-Tyr by aspartate; (2) substitution of 24 Arg
CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
CC acids 2-8. The present sequence is a specifically claimed human MCP-1
CC derivative based on the parent protein disclosed in Rollins, Molecular
CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
CC The peptides can be used to prevent restenosis, e.g. in patients
CC undergoing coronary artery angioplasty.
SQ Sequence 69 AA;
Query Match 100.0%; Score 97; DB 14; Length 69;
Best Local Similarity 100.0%; Pred. No. 4.79e-03;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Db 43 eicadpdkxwq 54
|||||
OY 1 EICADPKOKRWQ 12
RESULT 5
ID W13596 standard; peptide; 69 AA.
AC W13596;
DE 07-NOV-1997 (first entry)
DE Monocyte chemoattractant protein analogue MCP-1 (8-76).
KW Truncated monocyte chemoattractant protein-1; inhibitor;
KW receptor binding; anti inflammatory; basophil; lymphocyte; allergy;
KW chronic inflammatory disease; arthritis; arteriosclerosis;
KW lung disease.
US Homo sapiens.
PN CA2152141-A.
PD 20-DEC-1996.
PE 19-JUN-1995; 152141.
PR 19-JUN-1995; CA-152141.
PA (LEMI/) LEWIS I.
PI Gong J, Lewis I;
DR WPI: 97-165844/16.
PT N-terminally truncated monocyte chemo-attractant protein-1 (MCP-1) -
PT lacks MCP-1 activity and inhibits receptor binding, useful as
PT anti-inflammatory agent
PS Claim 5; Page 5; 27pp; English.
CC The present sequence represents an analogue, MCP-1 (8-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-7 of MCP-1, acts as an antagonist of MCP-1

CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammation sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC providing 50% inhibition of binding at a 25:1 ratio or less, compared
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 69 AA;
Query Match 100.0%; Score 97; DB 24; Length 69;
Best Local Similarity 100.0%; Pred. No. 4.79e-03;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Db 43 eicadpdkxwq 54
|||||
OY 1 EICADPKOKRWQ 12
RESULT 6
ID R87680 standard; protein; 76 AA.
AC R87680;
DE 05-MAR-1996 (first entry)
DE Monocyte chemotactic activating factor for use as wound remedy.
KW Monocyte chemotactic activating factor; MCAF; wound remedy.
OS Homo sapiens.
PN MO9507710-A1.
PD 23-MAR-1995.
PE 13-SEP-1994; J01512.
PR 13-SEP-1993; JP-227385.
PA (TORA) TORAY IND INC.
PI Matsushima K, Naruto M;
DR WPI: 95-11181/17.
PT Wound treatment using monocyte chemotactic factor - has potent
PT therapeutic effect on skin wounds and ulcers
PS Disclosure; Page 12; 22pp; Japanese.
CC The invention relates to a new remedy for curing wounds which, instead
CC of comprising a growth factor, comprises a monocyte chemotactic
CC activating factor (MCAF) or its variants or derivatives. The factor has
CC potent effect on skin wounds and ulcers. The present sequence is human
CC MCAF, the activity of which is exemplified as the new remedy.
SQ Sequence 76 AA;
Query Match 100.0%; Score 97; DB 15; Length 76;
Best Local Similarity 100.0%; Pred. No. 4.79e-03;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Db 50 eicadpdkxwq 61
|||||
OY 1 EICADPKOKRWQ 12
RESULT 7
ID W11131 standard; protein; 76 AA.
AC W11131;
DE 10-JUN-1997 (first entry)
DE Mature human monocyte chemoattractant protein-1 (MCP-1).
KW MCP-1; mature chemoattractant protein-1; cytokine; interleukin-8;
KW IL-8; neutrophil activating peptide; labelling; imaging; targeting;
KW radionuclide; infection; inflammation; neoplasm; apertomatous lesion;
KW restenosis.
OS Homo sapiens.
FH Key
FT misc_difference 1
FT /note- "X- any amino acid"
FT US5605671-A.
PN 25-FEB-1997.
PD 05-OCT-1992; 956862.
PE 05-OCT-1992; US-956863.
PR 05-OCT-1992; US-956862.
PR 29-APR-1994; US-235659.

PA (MLCN) MALLINCKRODT MEDICAL INC.
 PA (UNMI) UNIT MICHIGAN.
 PI Kunkel SL, Lyle LR, Strieter RM;
 DR WPI: 97-153541/14.
 PT Radio:labelling neutrophil-activating peptide(s) - for imaging
 PT targeted delivery of radioactive agent
 PS Example 10: Column 19-20: 15pp; English.
 CC W1131 represents mature human monocyte chemoattractant protein-1
 CC (MCP-1). MCP-1 was radiolabelled and used in a method for
 CC imaging a target site in vivo in an animal. Labelled MCP-1 was allowed
 CC to accumulate at a target site (having MCP-1 receptors) in the animal
 CC and detected so as to image the target site. Any Cys-Cys or Cys-Xaa-Cys
 CC chemokine carrying either iodine-123 or iodine-131 can be used in the
 CC method. Especially preferred is neutrophil activating peptide-2 (NAP-2)
 CC which recognises interleukin-8 receptors and is labelled with
 CC technetium-99m, indium-111, copper-62, rhenium-186 or rhenium-188.
 CC The method can be used for imaging a site of infection, inflammation,
 CC neoplasm, atheromatous lesion or restenosis.
 SQ Sequence 76 AA;

Query Match 100.0%; Score 97; DB 21; Length 76;
 Best Local Similarity 100.0%; Pred. No. 4.79e-03;
 Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 50 eicadpkkqkwyq 61
 |||||||||
 1 EICADPKQKXWQ 12

RESULT 8
 ID R28660 standard: Protein; 76 AA.
 AC R28660;
 DT 24-MAR-1993 (first entry)
 DE MCF.
 KW Plasmid; monocyte chemotactic factor; MCF; translation;
 KW termination; terminator; initiation; ribosome binding site;
 KM RBS; promoter; tryptophan; repressor.
 OS Synthetic.
 PN W09219737-A.
 PD 12-NOV-1992.
 PF 07-APR-1992; J00550.
 PF 29-MAY-1991; JP-135950.
 PA (DAIN) DAINIPPON PHARM CO LTD.
 PA Fukui T, Matsuo N, Yamada M, Yamagishi J;
 DR WPI: 92-398864/46.
 DR N-PSDB: Q30745-46.
 PT Prod. of polypeptide(s) having monocyte chemotactic activity -
 PT using expression plasmids with E. coli elements and specific
 PT E.coli strains
 PS Claim 1: Page 48 + Page 36; 56pp; English.
 CC An expression plasmid, pHM483, for producing MCF(76) consisting
 CC of 76 amino acids was constructed. The prod. can be used for e.g.
 CC treating bacterial infectious diseases.
 SQ Sequence 76 AA;

Query Match 100.0%; Score 97; DB 5; Length 76;
 Best Local Similarity 100.0%; Pred. No. 4.79e-03;
 Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 50 eicadpkkqkwyq 61
 |||||||||
 1 EICADPKQKXWQ 12

RESULT 9
 ID P90292 standard: peptide; 76 AA.
 AC P90292;
 DT 17-JAN-1990 (first entry)
 DE Peptide from human glioma cell line U-105MG.
 KW Glioma; leucocyte; chemotaxis; neoplasms.
 OS Human.
 FT key
 FT modified_site 1 Location/Qualifiers

FT /label- OTHER
 FT /note- "pyroglutamic acid"
 PD US7304234-A.
 PN 20-JUL-1989.
 PF 31-JAN-1989; 030423.
 PR 31-JAN-1989; US-304234.
 PA (USSH) US Dept. of Health and Human.
 PI Yoshimura T; Robinson E; Appella E; Leonard E.
 DR WPI: 89-263501/36.
 PT New peptide with specific chemotactic activity for monocytes - isolated
 PT from glioma or leucocyte cells, useful for treating infections and
 PT neoplasms.
 PS disclosure: page 3: 46pp; English.
 CC Peptide is derived from glioma cell line U-105MG (ATCC CR9932) or from
 CC leukocytes and has mol. wt. 8400. Used to treat infections and neoplasms.
 SQ Sequence 76 AA;

Query Match 100.0%; Score 97; DB 1; Length 76;
 Best Local Similarity 100.0%; Pred. No. 4.79e-03;
 Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 50 eicadpkkqkwyq 61
 |||||||||
 1 EICADPKQKXWQ 12

RESULT 10
 ID R87675 standard: protein; 76 AA.
 AC R87675;
 DT 21-FEB-1996 (first entry)
 DE (28-ASP) MCP-1.
 KW monocyte chemoattractant protein; MCP-1; mutant; restenosis;
 KW angioplasty.
 OS Homo sapiens.
 FT key
 FT modified_site 28 Location/Qualifiers
 FT /note- "1yr in the native sequence is replaced by asp"
 FT disulfide_bond 11..36
 FT disulfide_bond 12..52
 PN W09513295-A1.
 PF 18-MAY-1995.
 PF 07-NOV-1994; U12874.
 PF 12-NOV-1993; US-152301.
 PA (DAND) DANA FARBER CANCER INST INC.
 PA Rollins B, Zhang YJ;
 DR WPI: 95-215051/28.
 PT Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are
 PT capable of inhibiting the monocyte chemo-attractant activity of
 PT endogenous MCP-1 and can be used to treat restenosis
 PS Claim 3: Page 11; 22pp; English.
 CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
 CC that they inhibit the monocyte chemoattractant activity of endogenous
 CC MCP-1, provided that the derivative has not been modified by the
 CC substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
 CC by pHe; (3) substitution of 3-asp by Ala; and/or (4) deletion of amino
 CC acids 2-8. The present sequence is a specifically claimed human MCP-1
 CC derivative based on the parent protein disclosed in Rollins, Molecular
 CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
 CC The peptides can be used to prevent restenosis, e.g. in patients
 CC undergoing coronary artery angioplasty.
 SQ Sequence 76 AA;

Query Match 100.0%; Score 97; DB 14; Length 76;
 Best Local Similarity 100.0%; Pred. No. 4.79e-03;
 Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 50 eicadpkkqkwyq 61
 |||||||||
 1 EICADPKQKXWQ 12

RESULT 11

ID	W09374	standard; Protein: 76 AA.
AC	W09374;	
DT	21-MAR-1997	(first entry)
DE	Monocyte Chemotactic protein 1.	
KW	Human; monocyte chemoattractant protein; antisense; inhibition;	
KW	mononuclear cell; lymphocyte; macrophage; smooth muscle cell;	
KW	vascular restenosis.	
OS	Homo sapiens.	
FT	Key	Location/Qualifiers
FT	misc_difference 1	/note= "encoded by codon CAG"
FT	misc_difference 51	/note= "encoded by codon AUG"
FT	misc_difference 65	/note= "encoded by codon CAC"
FT	US5571713-A.	
PD	05-NOV-1996.	
PE	22-OCT-1992; 965678.	
PR	22-OCT-1992; US-965678.	
PR	27-MAY-1994; US-250958.	
PA	(UNKM1 SL, Lyle LR, Strieter RM;	
PI	WPI: 96-505405/50.	
DR	N-PSDB: T48092.	
PT	Anti-sense Monocyte Chemotactic Protein-1 oligo:nucleotide(s) -	
PT	useful for therapy or diagnosis of restenosis, etc.	
PS	Disclosure: Column 13-14; 16pp; English.	
CC	This is the amino acid sequence of the human monocyte chemoattractant	
CC	protein (MCP-1, a member of the C-C chemokine family. MCP-1 is a potent	
CC	stimulator of monocyte chemotaxis and is produced by injured vascular	
CC	smooth cells thus attracting monocytes and macrophages which infiltrate	
CC	the injured area and release growth factor. This causes proliferation of	
CC	the vascular smooth cells resulting in restenosis. The gene sequence can	
CC	be used to generate antisense sequences e.g. T48093-7, which can be used	
CC	to inhibit in vitro MCP-1 prodn. by mononuclear cells e.g. lymphocytes or	
CC	macrophages, or smooth muscle cells, esp. in order to prevent vascular	
CC	restenosis.	
CC	Sequence 76 AA;	
CC	Sequence 76 AA;	
Query Match	100.0%;	Score 97; DB 20; Length 76;
Best Local Similarity	100.0%;	Pred. No. 4,79e-03;
Matches	12; Conservative	0; Mismatches 0; Indels 0; Gaps 0;
Db	50 elcagdkqkqkwg 61	
OY	1 EICADPKOKKWQ 12	
RESULT	12	
ID	R53398	standard; Protein: 76 AA.
AC	R53398;	
DT	15-DEC-1994	(first entry)
DE	Sense MCP-1.	
KW	Antisense; RNA; DNA; monocyte chemotactic protein-1; MCP-1;	
KW	radionuclide; vascular restenosis; alpha; beta; emitting isotope;	
KW	diagnosis; monocytes; vascular injury.	
OS	Mammalian.	
FT	Key	Location/Qualifiers
FT	misc_difference 1	/note= "Unspecified amino acid"
FT	W09409128-A.	
PD	28-APR-1994.	
PE	20-OCT-1993; U10074.	
PR	22-OCT-1992; US-965678.	
PA	(MCM) MALLINCKRODT MEDICAL INC.	
PI	Lyle LR;	
PT	WPI: 94-15134/18.	
PT	Anti-sense monocyte chemotactic protein-1 oligo:nucleotide(s) and	
PT	peptide(s) - is used for inhibiting, treating or imaging areas of	
PT	vascular restenosis or potential restenosis	
PT	Disclosure: Page 5; 42pp; English.	
CC	The sequences given in R53398-99 represent sense and antisense	
CC	monocyte chemotactic protein-1 (MCP-1) respectively. These	

Query Match	100.0%;	Score 97;	DB 10;	Length 76;
Best Local Similarity 100.0%;		Pred. No. 4.79e-03;		
Matches 12;	Conservative 0;	Mismatches 0;	Indels 0;	Gaps 0;
Db	50 elcaddpdkqkwq 61			
QY	1 EICADPKKQKWQ 12			
RESULT 13				
ID	R87677 standard; protein; 76 AA.			
AC	R87677;			
DT	21-FEB-1996 (first entry)			
DE	(3-Ala) MCP-1.			
KM	monocyte chemoattractant protein; MCP-1; mutant; restenosis;			
OS	angioplasty.			
KW	Homo sapiens.			
FT	Key			
FH	modified_site 3			
FT	location/Qualifiers			
FT	/note="asp in the native sequence is replaced by Ala"			
FT	disulfide_bond 11..36			
FT	disulfide_bond 12..52			
PN	WO9513295-A1.			
PD	18-MAY-1995.			
PE	07-NOV-1994; U12874.			
PR	12-NOV-1993; US-152301.			
PA	(DAND) DANA FARBER CANCER INST INC.			
PI	Rollins B, Zhang YJ;			
DI	WPI; 95-215051/28.			
PT	Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are			
PT	capable of inhibiting the monocyte chemo-attractant activity of			
PT	endogenous MCP-1 and can be used to treat restenosis			
PS	Claim 6; Page 11; 22pp; English.			
CC	Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such			
CC	that they inhibit the monocyte chemoattractant activity of endogenous			
CC	MCP-1, provided that the derivative has not been modified by the			
CC	substitution of 28-Tyr by Ieu and/or 30-Arg by Val. Preferred mutations			
CC	are: (1) substitution of 28-Tyr by aspartate; (2) substitution of 24 Arg			
CC	by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino			
CC	acids 2-8. The present sequence is a specifically claimed human MCP-1			
CC	derivative based on the parent protein disclosed in Rollins, Molecular			
CC	and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.			
CC	The peptides can be used to prevent restenosis, e.g. in patients			
CC	undergoing coronary artery angioplasty.			
SO	Sequence 76 AA;			
Query Match	100.0%;	Score 97;	DB 14;	Length 76;
Best Local Similarity 100.0%;		Pred. No. 4.79e-03;		
Matches 12;	Conservative 0;	Mismatches 0;	Indels 0;	Gaps 0;
Db	50 elcaddpdkqkwq 61			
QY	1 EICADPKKQKWQ 12			
RESULT 14				
ID	R87676 standard; protein; 76 AA.			
AC	R87676;			
DT	21-FEB-1996 (first entry)			
DE	(24-Arg) MCP-1.			
KM	monocyte chemoattractant protein; MCP-1; mutant; restenosis;			
OS	angioplasty.			
KW	Homo sapiens.			

Key Location/Qualifiers
 modified_site 24 /note= "Arg in the native sequence is replaced by Phe"
 FT disulfide_bond 11..36
 FT disulfide_bond 12..52
 PN MO9513295-A1
 PD 18-MAY-1995
 PF 07-NOV-1994; U12874.
 PR 12-NOV-1993; US-152301.
 PA (DAND) DANA FARBER CANCER INST INC.
 PI Rollins B, Zhang YJ;
 DR WPI: 95-215051/28.
 PT Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are
 capable of inhibiting the monocyte chemo attractant activity of
 endogenous MCP-1 and can be used to treat restenosis
 PS Claim 5; Page 11; 22pp; English.
 CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
 that they inhibit the monocyte chemoattractant activity of endogenous
 MCP-1, provided that the derivative has not been modified by the
 substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
 are: (1) substitution of 28-Tyr by aspartate; (2) substitution of 24 Arg
 by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
 acids 2-8. The present sequence is a specifically claimed human MCP-1
 derivative based on the parent protein disclosed in Rollins, Molecular
 and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
 CC The peptides can be used to prevent restenosis, e.g. in patients
 undergoing coronary artery angioplasty.
 SQ Sequence 76 AA;

Query Match 100.0%; Score 97; DB 14; Length 76;
 Best Local Similarity 100.0%; Pred. No. 4.79e-03;
 Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 50 eicadpkrxwvq 61
 |||||||
 1 EICADPKRQWVQ 12

RESULT 15
 ID R86859 standard; Protein; 77 AA.
 AC R86859;
 DT 20-MAR-1996 (first entry)
 DE Mature MCP-1.
 KM Antisense: monocyte chemotactic protein-1; MCP-1:
 "C-C" family; chemotactic cytokine; chemokine; stimulation;
 KW monocyte; chemotaxis; vascular smooth muscle cell; macrophage;
 KW proliferation; restenosis; Balloon angioplasty.
 OS Homo sapiens.
 PN MO9519167-A1.
 PD 20-JUL-1995
 PF 13-JAN-1995; U00605.
 PR 14-JAN-1994; US-182917.
 PA (MLCW) MALLINCKRODT MEDICAL INC.
 PI Lyle LR, Thomas-Miller B;
 DR WPI: 95-263703/34.
 DR N-PSDB: T03528.
 PT New anti-sense oligo:nucleotide(s) and peptide(s) for inhibiting
 PT restenosis - are directed against C-C family cytokine(s) such as
 PT monocyte chemotactic protein, opt. radio:labelled for therapy or
 PT imaging
 PS Disclosure: Page 5; 50pp; English.
 CC This sequence represents the mature form of monocyte chemotactic
 CC protein-1 (MCP-1). MCP-1 is a member of the "C-C" family of
 CC chemotactic cytokines or chemokines. It is a potent stimulator
 CC of monocyte chemotaxis and has an extremely high degree of specificity
 CC for this cell type. MCP-1 is produced by injured vascular smooth muscle
 CC cells and attracts the monocytes and macrophages which infiltrate the
 CC area, releasing growth factors and resulting in proliferation of vascular
 CC smooth muscle and restenosis. Nucleic acid molecules which are antisense
 CC to the MCP-1 mRNA may be used to inhibit translation of MCP-1 and so may
 CC be useful for inhibiting vascular restenosis, partic. following Balloon
 CC angioplasty or a related process. The molecule may be radiolabelled to
 CC increase its therapeutic effect or for imaging areas of potential

CC restenosis.
 SQ Sequence 77 AA;

Query Match 100.0%; Score 97; DB 15; Length 77;
 Best Local Similarity 100.0%; Pred. No. 4.79e-03;
 Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 51 eicadpkrxwvq 62
 |||||||
 1 EICADPKRQWVQ 12

RESULT 16
 ID R28663 standard; Protein; 99 AA.
 AC R28663;
 DT 24-MAR-1993 (first entry)
 DE MCF.
 KM Plasmid: monocyte chemotactic factor; MCF; translation;
 KW termination; terminator; initiation; ribosome binding site;
 KW RBS; Promoter; tryptophan; repressor.
 OS Synthetic.
 FH Key Location/Qualifiers
 FT peptide 1..23
 FT protein /label= sig_peptide
 FT protein /label= mat_protein
 PN WC9219737-A.
 PD 12-NOV-1992.
 PF 27-APR-1992; J00550.
 PR 09-MAY-1991; JP-135950.
 PA (DAIN) DAINIPPON PHARM CO LTD.
 PI Fukui T, Matsuo N, Yamada M, Yamagishi J;
 DR WPI: 92-398864/48.
 DR N-PSDB: Q30748.
 PT Prod. of polypeptide(s) having monocyte chemotactic activity -
 PT using expression plasmids with E. coli elements and specific
 PT E. coli strains
 PS Disclosure: Page 43-44; 56pp; English.
 CC An expression plasmid, pMCO76 for producing MCF(76) consisting
 CC of 76 amino acids was constructed. DNA encoding MCF(76) was
 CC prep. using a recombinant plasmid pMCF7.
 SQ Sequence 99 AA;

Query Match 100.0%; Score 97; DB 5; Length 99;
 Best Local Similarity 100.0%; Pred. No. 4.79e-03;
 Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 73 eicadpkrxwvq 84
 |||||||
 1 EICADPKRQWVQ 12

RESULT 17
 ID P95387 standard; Protein; 99 AA.
 AC P95387;
 DT 25-JUL-1989 (first entry)
 DE Human monocyte chemo-attractant peptide-1.
 KW Human monocyte chemo-attractant peptide; inflammatory disease; neoplasms.
 OS Homo sapiens.
 FH Key Location/Qualifiers
 FT protein 24..99
 FT protein /product=MCP-1
 PN US7330446-A.
 PD 25-JUL-1989;
 PF 30-MAR-1989; 330446.
 PR 30-MAR-1989; US-330446.
 PA (USSH) US Dept. Health and Human.
 PI Yoshimura T, Robinson EA, Appella E, Leonard EJ;
 DR WPI: 89-300683/41.
 DR N-PSDB: N91337.
 PT Human derived monocyte chemo-attractant peptide prods. - obtd. from human
 PT glioma cell line U-109MG or peripheral blood mononuclear leukocytes.
 PS Disclosure: fig 2; 66pp; English.

CC This is a human-derived monocyte chemo-attractant peptide (MCP-1) sequence
CC MCP-1 exhibits optimal chemotactic activity at a concn. of 1nM and has a
CC mol. mass of c.a. 8,400 D. MCP-1 can be used for treating infection eg
CC inflammatory disease, or for the control of neoplasms by accumulation of
CC monocytes at the site of the infection. The corresp. DNA is obtd. by
CC chemical synthesis, by screening reverse transcripts of mRNA from
CC purified blood leukocytes or cell cultures of eg U-373 MG or KMG-5.
SQ Sequence 99 AA;

Query Match 100.0%; Score 97; DB 2; Length 99;
Best Local Similarity 100.0%; Pred. No. 4.79e-03;

Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 73 elcaddpkqkvwg 84
|||
Qy 1 EICADPKQKQWQ 12

RESULT 18
ID R70800 standard; Protein; 99 AA.

AC R70800;

DE 29-AUG-1995 (first entry)

DE Chemottractant protein MCP-1.

KW MCP-1; chemottractant; heparanase; heparin; heparan sulfate;
KW arthritis; restenosis; cancer; wound healing.

OS Homo sapiens.

PN W09504158-A.

PD 09-FEB-1995.

PE 26-JUL-1994; U08207.

PR 29-JUL-1993; US-099866.

PR 13-OCT-1993; US-136117.

PA (UPJO) UPJOHN CO.

P1 Hoogwerf AJ, Ledbetter SR;

DR WPI; 95-082239/11.

N-PSDB; Q85370.

PT Screening for cpds. with anti-heparanase activity - by detecting
PT inhibition of heparin or heparan sulphate degradation,
PT potentially useful for treating arthritis, restenosis, cancer.

PS Claim 13; Page 49; 60pp; English.

CC Purified heparanases, prepared under reducing conditions and
CC activated with transglutaminase, are given in R70786-804. Most
CC are prepared with transglutaminase, are given in R70786-804. Most
CC leukocytes, then cloning of the cDNA into pVL1392 baculovirus
CC vector, and expression in Sf9 cells in the presence of reduced
CC glutathione and dithiothreitol.

CC Sequence 99 AA;

Query Match 100.0%; Score 97; DB 13; Length 99;
Best Local Similarity 100.0%; Pred. No. 4.79e-03;

Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 73 elcaddpkqkvwg 84
|||
Qy 1 EICADPKQKQWQ 12

RESULT 19
ID R73914 standard; Protein; 99 AA.

AC R73914;

DE 05-DEC-1995 (first entry)

DE Human monocyte chemoattractant factor hMCP-1.

KW Human monocyte chemoattractant factor; hMCP-1; chemokine; vaccine;
KW meningitis related homologous antigenic sequence; MRHS; RV-1;
KW immunosassay; diagnosis; treatment; prophylactic; bacterial;
KW viral.

OS Homo sapiens.

PN W09509232-A.

PD 06-APR-1995.

PE 28-SEP-1994; CA0516.

PR 28-SEP-1993; US-127499.

PR (SHAR/) SHARMA L R.

PA (VALS/) VAN ALSTYNE D.

P1 Sharma LR, Van Alstyne D;

DR WPI. 95-147431/19.

PT New peptide(s) and corresp. antibodies for the treatment of

PT meningitis - the peptide(s) corresp. to homologous antigenic for

PT sites on bacterial and viral agents and on chemokine(s), used for

PT detecting and preventing meningitis

PS Claim 47; Fig 8/10; 98pp; English.

CC R73914 is the chemokine human monocyte chemoattractant factor hMCP-1.

CC It contains the meningitis related antigenic sequences (MRHS) claimed

CC in R73895 and R73907, which are recognised by a monoclonal antibody

CC from the hybridoma Rubella virus (RV)-1. The claimed MRHS peptides

CC may be used in immunoassays to diagnose the presence of bacterial

CC and/or viral meningitis agents in a sample, or in prophylactic and

CC therapeutic meningitis treatments. The peptides may also be used as

CC vaccines against meningitis.

CC NB: Identified by matching corresponding MRHS peptides.

SQ Sequence 99 AA;

Query Match 100.0%; Score 97; DB 14; Length 99;
Best Local Similarity 100.0%; Pred. No. 4.79e-03;

Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 73 elcaddpkqkvwg 84
|||
Qy 1 EICADPKQKQWQ 12

RESULT 20
ID W22675 standard; Protein; 71 AA.

AC W22675;

DE 19-MAR-1998 (first entry)

DE Drol3+ chemokine beta10 or monocyte chemotactic protein 4 variant.

KW Human; chemokine beta10; CK beta10; treatment; antagonist;

KW solid tumour; infection; autoimmune disease; asthma; antibody;

KW fibrotic disease; psoriasis; neurodegenerative disease;

KW wound healing; haematopoiesis regulation; gene therapy;

KW chromosome identification; monocyte chemotactic protein 4;

KW Leukemia; MCP-4; Drol3+ variant.

OS Homo sapiens.

PN W09731098-A1.

PD 28-AUG-1997.

PE 23-FEB-1996; U02598.

PR 23-FEB-1996; WO-002598.

PA (HUMA-) HUMAN GENOME SCI INC.

P1 Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,

P1 Parmelee D, White J;

DR WPI; 97-435153/40.

PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic

PT protein 4 - useful to treat tumours, autoimmune disease, infection,

PT asthma and fibrosis

PS Example 11; Fig 5; 83pp; English.

CC The present sequence is human chemokine beta10 (CK beta10) or

CC monocyte chemotactic protein 4 (MCP-4) Drol3+ variant, which can

CC be used to treat patients deficient in CK beta10, while a CK beta10

CC antagonist can be used to reduce excessive levels of CK beta10. CK

CC beta10 can be used to treat leukaemia, solid tumours, chronic or

CC opportunistic infections, autoimmune diseases, asthma, fibrotic

CC diseases, psoriasis and neurodegenerative diseases. It also

CC promotes wound healing, regulates haematopoiesis and generates

CC antibodies. Labelled CK beta10 can be used to identify its cognate

CC receptor, while cells expressing the receptor can be used to screen

CC compounds for (ant)agonist activity. The antagonist can be used to

CC treat Rheumatoid arthritis, autoimmune, chronic inflammatory or

CC infectious diseases, allergies, prosta glandin dependent fever and

CC bone marrow failure, sarcoidosis, hyper-eosinophilic

CC syndrome, lung inflammation and atherosclerosis. CK beta10 cDNA can

CC be used to isolate genes encoding similar peptides, in gene therapy

CC and for chromosome identification.

SQ Sequence 71 AA;

Query Match 95.9%; Score 93; DB 27; Length 71;

Best Local Similarity 91.7%; Pred. No. 1.28e-02;

Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 45 eicadpkekwyg 56
 |||||:||||
 QY 1 EICADPKOKWQV 12

RESULT 21

ID W22672 standard; Protein; 75 AA.

AC W22673;
 DT 19-MAR-1998 (first entry)
 DE Bac 3 chemokine beta10 or monocyte chemotactic protein 4 variant.
 KW Human; chemokine beta10; Ck beta10; treatment; antagonist;
 KW solid tumour; infection; autoimmune disease; asthma; antibody;
 KW fibrotic disease; psoriasis; neurodegenerative disease;
 KW wound healing; haematopoiesis regulation; gene therapy;
 KW chromosome identification; monocyte chemotactic protein 4;
 KW leukaemia; MCP-4; Bac 3 variant.
 OS Homo sapiens.
 PN W09731098-A1.
 PD 28-AUG-1997.
 PE 23-FEB-1996; WO-02598.
 PR 23-FEB-1996; WO-02598.
 PA (HUMA-) HUMAN GENOME SCI INC.
 PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
 PI Parmelee D, White J;
 PI WPI: 97-435153/40.
 DR Polypeptide encoding chemokine beta 4 and monocyte chemotactic
 PT protein 4 - useful to treat tumours, autoimmune disease, infection,
 PT asthma and fibrosis
 PS Example 11; Fig 5; 83pp; English.
 CC The present sequence is human chemokine beta10 (Ck beta10) or
 CC monocyte chemotactic protein 4 (MCP-4) Bac 3 variant, which can be
 CC used to treat patients deficient in Ck beta10, while a Ck beta10
 CC antagonist can be used to reduce excessive levels of Ck beta10. Ck
 CC beta10 can be used to treat leukaemia, solid tumours, chronic or
 CC opportunistic infections, autoimmune diseases, asthma, fibrotic
 CC diseases, psoriasis and neurodegenerative diseases. It also
 CC promotes wound healing, regulates haematopoiesis and generates
 CC antibodies. Labelled Ck beta10 can be used to identify its cognate
 CC receptor, while cells expressing the receptor can be used to screen
 CC compounds for (ant)agonist activity. The antagonist can be used to
 CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
 CC infectious diseases, allergies, prostaglandin dependent fever and
 CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
 CC syndrome, lung inflammation and atherosclerosis. Ck beta10 cDNA can
 CC be used to isolate genes encoding similar peptides, in gene therapy
 CC and for chromosome identification.
 SQ Sequence 75 AA;

Query Match 95.9%; Score 93; DB 27; Length 75;

Best Local Similarity 91.7%; Pred. No. 1,28e-02;
 Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 49 eicadpkekwyg 60
 |||||:||||
 QY 1 EICADPKOKWQV 12

RESULT 22

ID W22672 standard; Protein; 77 AA.

AC W22672;
 DT 19-MAR-1998 (first entry)
 DE Bac 2 chemokine beta10 or monocyte chemotactic protein 4 variant.
 KW Human; chemokine beta10; Ck beta10; treatment; antagonist;
 KW solid tumour; infection; autoimmune disease; asthma; antibody;
 KW fibrotic disease; psoriasis; neurodegenerative disease;
 KW wound healing; haematopoiesis regulation; gene therapy;
 KW chromosome identification; monocyte chemotactic protein 4;
 KW leukaemia; MCP-4; Bac 2 variant.
 OS Homo sapiens.
 PN W09731098-A1.
 PD 28-AUG-1997.
 PE 23-FEB-1996; WO-02598.
 PR 23-FEB-1996; WO-02598.

PA (HUMA-) HUMAN GENOME SCI INC.
 PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
 PI Parmelee D, White J;
 PI WPI: 97-435153/40.
 DR Polypeptide encoding chemokine beta 4 and monocyte chemotactic
 PT protein 4 - useful to treat tumours, autoimmune disease, infection,
 PT asthma and fibrosis
 PS Example 11; Fig 5; 83pp; English.

CC The present sequence is human chemokine beta10 (Ck beta10) or
 CC monocyte chemotactic protein 4 (MCP-4) Bac 2 variant, which can be
 CC used to treat patients deficient in Ck beta10, while a Ck beta10
 CC antagonist can be used to reduce excessive levels of Ck beta10. Ck
 CC beta10 can be used to treat leukaemia, solid tumours, chronic or
 CC opportunistic infections, autoimmune diseases, asthma, fibrotic
 CC diseases, psoriasis and neurodegenerative diseases. It also
 CC promotes wound healing, regulates haematopoiesis and generates
 CC antibodies. Labelled Ck beta10 can be used to identify its cognate
 CC receptor, while cells expressing the receptor can be used to screen
 CC compounds for (ant)agonist activity. The antagonist can be used to
 CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
 CC infectious diseases, allergies, prostaglandin dependent fever and
 CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
 CC syndrome, lung inflammation and atherosclerosis. Ck beta10 cDNA can
 CC be used to isolate genes encoding similar peptides, in gene therapy
 CC and for chromosome identification.
 SQ Sequence 77 AA;

Query Match 95.9%; Score 93; DB 27; Length 77;

Best Local Similarity 91.7%; Pred. No. 1,28e-02;
 Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 51 eicadpkekwyg 62
 |||||:||||
 QY 1 EICADPKOKWQV 12

RESULT 23

ID W22674 standard; Protein; 79 AA.

AC W22674;
 DT 19-MAR-1998 (first entry)
 DE Droll/2 chemokine beta10 or monocyte chemotactic protein 4 variant.
 KW Human; chemokine beta10; Ck beta10; treatment; antagonist;
 KW solid tumour; infection; autoimmune disease; asthma; antibody;
 KW fibrotic disease; psoriasis; neurodegenerative disease;
 KW wound healing; haematopoiesis regulation; gene therapy;
 KW chromosome identification; monocyte chemotactic protein 4;
 KW leukaemia; MCP-4; Droll/2 variant.
 OS Homo sapiens.
 PN W09731098-A1.
 PD 28-AUG-1997.
 PE 23-FEB-1996; WO-02598.
 PR 23-FEB-1996; WO-02598.
 PA (HUMA-) HUMAN GENOME SCI INC.
 PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
 PI Parmelee D, White J;
 PI WPI: 97-435153/40.
 DR Polypeptide encoding chemokine beta 4 and monocyte chemotactic
 PT protein 4 - useful to treat tumours, autoimmune disease, infection,
 PT asthma and fibrosis
 PS Example 11; Fig 5; 83pp; English.

CC The present sequence is human chemokine beta10 (Ck beta10) or
 CC monocyte chemotactic protein 4 (MCP-4) Droll/2 variant, which can
 CC be used to treat patients deficient in Ck beta10, while a Ck beta10
 CC antagonist can be used to reduce excessive levels of Ck beta10. Ck
 CC beta10 can be used to treat leukaemia, solid tumours, chronic or
 CC opportunistic infections, autoimmune diseases, asthma, fibrotic
 CC diseases, psoriasis and neurodegenerative diseases. It also
 CC promotes wound healing, regulates haematopoiesis and generates
 CC antibodies. Labelled Ck beta10 can be used to identify its cognate
 CC receptor, while cells expressing the receptor can be used to screen
 CC compounds for (ant)agonist activity. The antagonist can be used to
 CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
 CC infectious diseases, allergies, prostaglandin dependent fever and

CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
 CC syndrome, lung inflammation and atherosclerosis. Ck beta10 cDNA can
 CC be used to isolate genes encoding similar peptides, in gene therapy
 CC and for chromosome identification.
 SQ Sequence 79 AA;

Query Match 95.9%; Score 93; DB 27; Length 79;
 Best Local Similarity 91.7%; Pred. No. 1.28e-02;
 Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 53 eicadpkexkwq 64
 |||||||
 QY 1 EICADPKOKWQ 12

RESULT 24
 ID W22671 standard; Protein: 82 AA.
 AC W22671;
 DT 19-MAR-1998 (first entry)
 DE Bac 1 chemokine beta10 or monocyte chemotactic protein 4 variant.
 KW Human; chemokine beta10; Ck beta10; treatment; antagonist;
 KW solid tumour; infection; autoimmune disease; asthma; antibody;
 KW fibrotic disease; psoriasis; neurodegenerative disease;
 KW wound healing; haematopoiesis regulation; gene therapy;
 KW chromosome identification; monocyte chemotactic protein 4;
 KW leukaemia; MCP-4; Bac 1 variant.
 OS Homo sapiens.
 PS MO9731098-A1.
 PD 28-AUG-1997.
 PE 23-FEB-1996: U02598.
 PR 23-FEB-1996: MO-U02598.
 PA (HUMA-) HUMAN GENOME SCI INC.
 PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SR,
 PI Parmelee D, White J;
 DR WPI: 97-435153/40.
 PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
 PT protein 4 - useful to treat tumours, autoimmune disease, infection,
 PT asthma and fibrosis
 PS Example 11; Fig 5; 83pp: English.
 CC The present sequence is human chemokine beta10 (Ck beta10) or
 CC monocyte chemotactic protein 4 (MCP-4) Bac 1 variant, which can be
 CC used to treat patients deficient in Ck beta10. While a Ck beta10
 CC antagonist can be used to reduce excessive levels of Ck beta10. Ck
 CC beta10 can be used to treat leukaemia, solid tumours, chronic or
 CC opportunistic infections, autoimmune diseases, asthma, fibrotic
 CC diseases, psoriasis and neurodegenerative diseases. It also
 CC promotes wound healing, regulates haematopoiesis and generates
 CC antibodies. Labeled Ck beta10 can be used to identify its cognate
 CC receptor. While cells expressing the receptor can be used to screen
 CC compounds for (ant)agonist activity. The antagonist can be used to
 CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
 CC infectious diseases, allergies, prostaglandin dependent fever and
 CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
 CC syndrome, lung inflammation and atherosclerosis. Ck beta10 cDNA can
 CC be used to isolate genes encoding similar peptides, in gene therapy
 CC and for chromosome identification.
 SQ Sequence 82 AA;

Query Match 95.9%; Score 93; DB 27; Length 82;
 Best Local Similarity 91.7%; Pred. No. 1.28e-02;
 Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 56 eicadpkexkwq 67
 |||||||
 QY 1 EICADPKOKWQ 12

RESULT 25
 ID W17665 standard; peptide; 82 AA.
 AC W17665;
 DT 16-DEC-1997 (first entry)
 DE Stem cell mobilising chemokine Ckbeta-10.
 KW Haematopoietic cell; parasitic infection; colony stimulating factor;

KW haematoregulator; immune response; bacterial infection; transplant;
 KW wound healing; bone marrow; immunosuppression; regeneration;
 KW neoplastic disease; viral disease; gene therapy; cytotoxic drug.
 OS Synthetic.
 PN MO9715594-A1.
 PD 01-MAY-1997.
 PE 23-OCT-1996; U16959.
 PR 24-OCT-1995; US-006051.
 PA (SMIK) SMITHKLINE BEECHAM CORP.
 PI Kreider BL, Li H, Pelus L, White JR;
 DR WPI: 97-258956/23.
 PT Ten new chemokine(s) able to mobilise stem cells - used where
 PT increased levels of haematopoietic cells are required, e.g. to
 PT increase resistance to infection
 PS Claim 7; Page 11-12; 24pp: English.
 CC The present sequence represents a chemokine, Ckbeta-10, which is capable
 CC of mobilising stem cells. The chemokine can be used therapeutically to
 CC improve stem cell mobilisation, optionally together with a colony
 CC stimulating factor or other haematoregulatory agent. It can be used
 CC wherever an increased level of haematopoietic cells is needed, e.g. to
 CC increase the immune response to chronic infection (particularly
 CC bacterial or parasitic), to promote wound healing, in (transplant)
 CC patients with reduced bone marrow function as a result of
 CC immunosuppressive treatment or disease, and to provide more rapid
 CC regeneration of bone marrow after treatment for neoplastic or viral
 CC diseases. The induced stem cells may be harvested for subsequent return
 CC to the patient, optionally after they have been genetically manipulated
 CC to deliver a selected gene product (gene therapy). The cells may be
 CC co-administered with a cytotoxic drug.
 SQ Sequence 82 AA;

Query Match 95.9%; Score 93; DB 24; Length 82;
 Best Local Similarity 91.7%; Pred. No. 1.28e-02;
 Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 56 eicadpkexkwq 67
 |||||||
 QY 1 EICADPKOKWQ 12

RESULT 26
 ID R93087 standard; Protein: 98 AA.
 AC R93087;
 DT 27-AUG-1996 (first entry)
 DE Human chemokine beta-10.
 KW Chemokine beta-10; chemokine beta-4; Ck beta-10; Ck beta-4;
 KW cytokine; leukaemia; tumour; cancer; autoimmune disease; psoriasis;
 KW asthma; allergy; wound healing; diagnosis; therapy.
 OS Homo sapiens.
 FH Key
 FT peptide Location/Qualifiers
 FT /label= Sig_peptide
 FT protein 25..98
 FT /label= Mat_protein
 PN W09605856-A1.
 PD 29-FEB-1996.
 PE 23-AUG-1994; U09484.
 PR 23-AUG-1994; MO-U09484.
 PR 08-SEP-1994; ZA-006936.
 PA (HUMA-) HUMAN GENOME SCI INC.
 PI Adams MD, Li H;
 DR WPI: 96-151145/15.
 DR N-PSDB: T17050.
 PT New chemokine Ck(beta)-4 and -10 genes and polypeptide(s) - useful
 PT to treat, e.g. leukaemia, solid tumours and auto-immune diseases
 PS Claim 19; Fig 2; 53pp: English.
 CC A novel human chemokine, Ck beta-10 (R93087), was identified as
 CC the product of a cDNA clone (T17050) isolated from a 9-wk early
 CC human tissue cDNA library. The protein is structurally related to
 CC the chemokine family. Recombinant Ck beta-10 can be obt. by
 CC incorporating the cDNA into a vector and expression of the protein
 CC in e.g. E. coli, COS or Sf9 cells. Ck beta-10 can be used to treat
 CC solid tumours, chronic infections, psoriasis, asthma and allergy,

CC to regulate haematopoiesis, promote wound healing, and to inhibit
 CC angiogenesis. It can also be used to inhibit bone marrow stem cell
 CC colony form. during chemotherapy.
 CC Sequence 98 AA;
 SQ

Query Match 95.9%; Score 93; DB 17; Length 98;
 Best Local Similarity 91.7%; Pred. No. 1.28e-02;
 Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 72 eicadpkexkwyg 83
 |||||:||||
 QY 1 EICADPKOKWQV 12

RESULT 27
 ID W30191 standard; Protein; 98 AA.
 AC W30191;
 DT 21-MAY-1998 (first entry)
 DE Monocyte chemotactic protein 5.
 KW Monocyte chemotactic protein 5; MCP-5; human; macrophage;
 KW chemokine; inhibitor; antiinflammatory; atherosclerosis;
 KW Crohn's disease; arthritis; angiogenesis; tumour; metastasis;
 KW therapy; diagnosis; medical imaging.
 OS Homo sapiens.
 FH Key Location/Qualifiers
 FT Peptide 1..23
 FT /label= sig_peptide
 FT Protein 24..98
 FT /label= Mat_protein
 FT /note= "Claim 4"
 PN WO9735982-A2.
 PD 02-OCT-1997.
 PF 26-MAR-1997; U04898.
 PR 27-MAR-1996; US-622851.
 PA (ICOS-) ICOS CORP.
 PI Godiska R, Gray PM;
 DR WPI: 97-489645/45.
 DR N-PSDB: T90880.
 PT Polynucleotide encoding monocyte chemotactic protein-5 - useful in
 PT treatment of e.g. inflammation, atherosclerosis, angiogenesis and
 PT tumours
 PS Claim 1; Page 36-37; 47pp; English.
 CC This polypeptide comprises human macrophage-derived
 CC monocyte chemotactic protein-5 (MCP-5) a novel C-C chemokine.
 CC Its amino acid sequence was deduced from a cDNA clone (see
 CC T90880 and T90883) isolated from a human macrophage cDNA
 CC library. A claimed method for producing MCP-5 comprises
 CC culturing a host cell that is stably transformed or transfected
 CC with MCP-5 polynucleotide. Also claimed is a hybridoma that
 CC produces a monoclonal antibody (MAB) that is specifically
 CC reactive with the mature MCP-5. MCP-5 (or its analogues and
 CC fragments) is used to enhance the immune response in cases of
 CC wounds or infections, while its inhibitors (e.g. the MAB) are
 CC useful as anti-inflammatory in cases of e.g. arthritis and
 CC Crohn's disease, also for treatment of atherosclerosis,
 CC angiogenesis and tumour growth (or metastasis). The MCP-5
 CC inhibitors can possibly also be used to reduce the damaging effects
 CC of chemo- and radio-therapy on myeloid progenitor cells, and to
 CC inhibit replication of HIV. MCP-5 can also be used to identify
 CC its cognate receptor, while MCP-5 peptides (or the analogues or
 CC receptors) are used to modulate MCP-5 activity and to identify
 CC MCP-5 agonists and antagonists.
 SQ Sequence 98 AA;

Query Match 95.9%; Score 93; DB 28; Length 98;
 Best Local Similarity 91.7%; Pred. No. 1.28e-02;
 Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
 Db 72 eicadpkexkwyg 83
 |||||:||||
 QY 1 EICADPKOKWQV 12

RESULT 28
 ID W22670 standard; Protein; 98 AA.
 AC W22670;
 DT 19-MAR-1998 (first entry)
 DE Human chemokine beta10 or monocyte chemotactic protein 4.
 KW Human chemokine beta10; Ck beta10; treatment; antagonist;
 KW solid tumour; infection; autoimmune disease; asthma; antibody;
 KW fibrotic disease; psoriasis; neurodegenerative disease;
 KW wound healing; haematopoiesis regulation; gene therapy;
 KW chromosome identification; monocyte chemotactic protein 4;
 KW leukaemia; MCP-4.
 OS Homo sapiens.
 FH Key Location/Qualifiers
 FT Peptide 1..23
 FT /label= sig_peptide
 FT Protein 24..98
 FT /label= mat_peptide
 PN WO9731098-A1.
 PD 28-AUG-1997.
 PF 23-FEB-1996; U02598.
 PR 23-FEB-1996; WO-U02598.
 PA (HUMA-) HUMAN GENOME SCI INC.
 PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
 PI Parmelee D, White J;
 DR WPI: 97-435153/40.
 DR N-PSDB: T85029.
 PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
 PT protein 4 - useful to treat tumours, autoimmune disease, infection,
 PT asthma and fibrosis
 PS Claim 1; Fig 2; 83pp; English.
 CC The present sequence is human chemokine beta10 (Ck beta10) or
 CC monocyte chemotactic protein 4 (MCP-4), which can be used to treat
 CC patients deficient in Ck beta10, while a Ck beta10 antagonist can
 CC be used to reduce excessive levels of Ck beta10. Ck beta10 can be
 CC used to treat leukaemia, solid tumours, chronic or opportunistic
 CC infections, autoimmune diseases, asthma, fibrotic diseases,
 CC psoriasis and neurodegenerative diseases. It also promotes wound
 CC healing, regulates haematopoiesis and generates antibodies.
 CC Labelled Ck beta10 can be used to identify its cognate receptor,
 CC while cells expressing the receptor can be used to screen compounds
 CC for (ant)agonist activity. The antagonist can be used to treat
 CC rheumatoid arthritis, autoimmune, chronic inflammatory or
 CC infectious diseases, allergies, prostaglandin dependent fever and
 CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
 CC syndrome, lung inflammation and atherosclerosis. Ck beta10 cDNA can
 CC be used to isolate genes encoding similar peptides, in gene therapy
 CC and for chromosome identification.
 SQ Sequence 98 AA;

Query Match 95.9%; Score 93; DB 27; Length 98;
 Best Local Similarity 91.7%; Pred. No. 1.28e-02;
 Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
 Db 72 eicadpkexkwyg 83
 |||||:||||
 QY 1 EICADPKOKWQV 12

RESULT 29
 ID R06398 standard; protein; 99 AA.
 AC R06398;
 DT 14-DEC-1990 (first entry)
 DE Human MCP precursor.
 KW Monocyte chemotactic factor; antibacterial; antitumour; cancer.
 OS Homo sapiens.
 FH Key Location/Qualifiers
 FT Peptide 24..99
 FT /label= mature MCF
 FT /note= "Claim 1"
 PN WO9007863-A.
 PD 26-JUL-1990.

PF 02-JAN-1990; U00004.
 PR 01-JAN-1989; JP-000065.
 PR 03-FEB-1989; JP-026438.
 PA (USDC) US SEC OF COMMERCE.
 PI Fututani Y, Fukui T, Junichi Y, Masaaki Y, Matsushima K;
 PI Oppenheim J;
 DR WPI: 90-253802/33.
 DR P-PSDB; R06398.
 PI Human monocyte chemotactic factor type polypeptide and DNA
 PI encoding it - useful as antibacterial and antitumour agents.
 PS Claim 2; Page 25; 27pp; English.
 CC The sequence was deduced from the DNA sequence determined from
 CC three recombinant plasmids, pHMCF7, pHMCF25 and pHMCF29 which
 CC were isolated from a cDNA library prepd. from RNA extracted from
 CC human promyelocytic leukaemia cell line, HL-60 (ATCC CCL-240).
 CC T and G resp; in pHMCF25 they were C and A resp. The AA at posn.
 CC 76 of the precursor protein is therefore not determined and may be
 CC either Ala or Thr. The protein may be produced by recombinant of
 CC DNA techniques in E.coli, and is useful as a drug for treatment of
 CC certain bacterial infections and cancers.
 SQ Sequence 99 AA;

Query Match 95.9%; Score 93; DB 2; Length 99;
 Best Local Similarity 91.7%; Pred. No. 1.28e-02;
 Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

DB 73 elcxqdkqkwyg 84
 ||| |||||
 OY 1 EICADPKOKWVQ 12

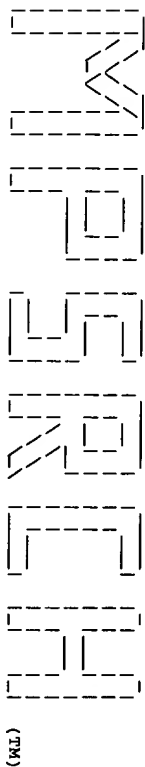
RESULT 30
 ID R26580 standard; Protein; 76 AA.
 AC R26580;
 DT 28-JAN-1993 (first entry)
 DE Sequence of bovine P6 protein.
 KW Monocyte chemoattractant; bovine P6-derivative; thrombosis; tumour;
 KM Inflammation therapy.
 OS Bos taurus.
 PN DE4125251-C.
 PD 03-SEP-1992.
 PF 31-JUL-1991; 125251.
 PR 31-JUL-1991; DE-125251.
 PA (SCHA-) SCHAPER & BROEMMER GMBH & CO KG.
 PI Gramm W, Lins E;
 DR WPI: 92-293438/36.
 PI Drug containing a bovine protein homologous to human MCP-1 - for
 PI treating inflammation, tumours, thrombosis, and immune reactions,
 PI also for diagnosis
 PS Claim 1; Page 3; 6pp; German.
 CC Poly(A)-RNA from bull seminal vesicles was used to prepare a cDNA in
 CC the expression vector lambda g11. 1.5 x 10(5) cDNA clones were
 CC screened with a polyclonal anti-P6 antiserum of monospecific
 CC immunoglobulin G and six positives were identified. The insert of a
 CC suitable cDNA clone, pH42, was cloned into pUC18 and sequenced.
 CC pH42 encodes the 11,114 Da precursor of P6. It is called Monocyte
 CC Chemoattractant (bmCP-1), which is a homologue of human (h)MCP-1.
 CC There is 72% overall AA sequence homology to hMCP-1 with the signal
 CC peptide showing 100% and the central region showing 89% homology.
 SQ Sequence 76 AA;

Query Match 94.8%; Score 92; DB 5; Length 76;
 Best Local Similarity 91.7%; Pred. No. 1.63e-02;
 Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

DB 50 elcagdkqkwyg 61
 ||:|||||||
 OY 1 EICADPKOKWVQ 12

Search completed: Thu Apr 1 07:25:32 1999
 Job time : 38 secs.

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Msrch_pp protein - protein database search, using Smith-Waterman algorithm
Run on: Thu Apr 1 07:24:12 1999; MasPar time 3.33 Seconds
Tabular output not generated. 134.969 Million cell updates/sec

Title: >US-08-927-939-1
Description: (1-12) from US08927939.pap
Perfect Score: 97
Sequence: 1 EICADPKQKRWQ 12

Scoring table:
PAM 150
Gap 15

Searched: 116738 segs, 37463448 residues

Post-processing: Minimum Match 0%
Listing first 100 summaries

Database: p1r58
1:p1r1 2:p1r2 3:p1r3 4:p1r4

Statistics: Mean 24.661; Variance 36.070; scale 0.684
Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description	Pred. No.
1	97	100.0	99	2	A60299	1.33e-08
2	96	99.0	99	2	JC2136	2.24e-08
3	92	94.8	99	2	A39296	1.78e-07
4	92	94.8	99	2	JC3336	1.78e-07
5	91	93.8	125	2	I46857	2.97e-07
6	90	92.8	109	2	A54678	4.96e-07
7	88	90.7	99	2	JC2417	1.37e-06
8	88	90.7	120	2	I48147	1.37e-06
9	86	88.7	97	2	JC4912	3.77e-06
10	84	86.6	95	2	JN0841	1.03e-05
11	84	86.6	96	2	JC2478	1.03e-05
12	84	86.6	96	2	I46099	1.03e-05
13	84	86.6	101	2	I46997	1.03e-05
14	84	86.6	101	2	A54966	1.03e-05
15	84	86.6	103	2	A53096	1.03e-05
16	84	86.6	103	2	A44253	1.03e-05
17	83	85.6	92	2	I53232	1.68e-05
18	82	84.5	99	2	JC5295	2.78e-05
19	81	83.5	101	2	I46871	4.55e-05
20	80	82.5	148	2	A30209	7.44e-05
21	76	78.4	92	2	A33393	5.18e-04
22	75	78.4	148	2	S07723	5.18e-04
23	75	77.3	89	2	A53497	8.37e-04

24	75	77.3	89	2	I53416	interleukin-8 homolog	8.37e-04
25	75	77.3	93	2	G01540	cytokine SDF-1-beta	8.37e-04
26	75	77.3	93	2	I81182	cytokine - mouse	8.37e-04
27	75	77.3	99	2	A37034	interleukin-8 precursor	8.37e-04
28	75	77.3	101	2	I48148	Neutrophil attractant	8.37e-04
29	74	76.3	91	1	A46539	monocyte chemoattract	1.35e-03
30	72	74.2	50	2	C60407	monocyte adherence-in	3.47e-03
31	72	74.2	92	2	A31567	macrophage inflammato	3.47e-03
32	72	74.2	92	2	A30574	macrophage inflammato	3.47e-03
33	72	74.2	93	2	B35673	LD78-beta protein pre	3.47e-03
34	70	72.2	120	2	JE0177	monocyte and monocy	8.81e-03
35	69	71.1	92	2	I46730	immune activation gen	1.40e-02
36	68	70.1	91	1	A28815	monocyte chemoattract	2.21e-02
37	68	70.1	97	2	A48093	monocytic cytokine FI	2.21e-02
38	68	70.1	114	1	ETMSL	lymphotactin precursor	2.21e-02
39	64	66.0	760	2	E55520	Chitin synthetase I -	1.34e-01
40	63	64.9	103	2	I50417	RSV-induced protein -	2.09e-01
41	63	64.9	103	2	A26736	transformation-induce	2.09e-01
42	62	63.9	92	2	C30552	macrophage inflammato	3.24e-01
43	61	62.9	114	1	ETHUL	lymphotactin precursor	5.01e-01
44	60	61.9	117	2	S57175	hypothetical protein	7.70e-01
45	59	60.8	116	2	I49555	hypothetical protein	7.70e-01
46	59	60.8	116	2	I49555	gene C10 protein - mo	1.18e+00
47	58	60.8	187	2	C71317	hypothetical protein	1.18e+00
48	58	59.8	1053	2	D71466	probable ribonucleosi	1.80e+00
49	57	58.8	192	2	E71437	probable resistance g	2.74e+00
50	56	57.7	176	2	G65065	hypothetical protein	4.14e+00
51	55	56.7	145	2	S76877	hypothetical protein	6.23e+00
52	55	56.7	350	2	S51406	hypothetical protein	6.23e+00
53	55	56.7	378	2	A49337	hypothetical protein	6.23e+00
54	55	56.7	397	2	S67061	alanine dehydrogenase	6.23e+00
55	55	56.7	491	2	S48827	hypothetical protein	6.23e+00
56	55	56.7	92	2	S24236	1-aminocyclopropane-1	6.23e+00
57	53	54.6	140	1	MMWZM3	TCA3 protein - mouse	1.39e+01
58	53	54.6	178	2	I69804	hypothetical protein	1.39e+01
59	53	54.6	187	2	D42465	polarity suppression	1.38e+01
60	53	54.6	1422	2	B71437	probable resistance g	1.38e+01
61	52	53.6	108	2	G70567	N-terminus of IS6110	2.07e+01
62	52	53.6	108	2	A60340	hypothetical protein	2.07e+01
63	52	53.6	332	2	H69494	pyruvate formate-lyas	2.07e+01
64	52	53.6	430	2	JC5303	hypothetical 41.7K pr	2.07e+01
65	52	53.6	430	2	JC5303	ultraviolet light res	2.07e+01
66	52	53.6	828	2	S52393	beta-galactosidase (E	2.07e+01
67	52	53.6	1872	2	JC4976	plexin 3 - mouse	2.07e+01
68	52	53.6	26926	1	I38344	titin, cardiac musc	2.07e+01
69	51	52.6	37	1	R5PM81	ribosomal protein L36	3.05e+01
70	51	52.6	37	2	S58585	ribosomal protein L36	3.05e+01
71	51	52.6	37	2	B70566	probable ribosomal pr	3.05e+01
72	51	52.6	188	2	JH0661	ribosomal protein L36	3.05e+01
73	51	52.6	188	2	JH0661	pectate lyase (EC 4.2	3.05e+01
74	51	52.6	219	2	S68364	probable nonspecific	3.05e+01
75	51	52.6	389	2	E71113	DNA gyrase-like prote	3.05e+01
76	51	52.6	627	2	C69637	hypothetical protein	3.05e+01
77	51	52.6	825	2	S75173	plasma cell membrane	3.05e+01
78	51	52.6	905	2	A27410	probable resistance g	3.05e+01
79	51	52.6	1038	2	A71437	regulatory protein ko	4.48e+01
80	51	52.6	85	2	C35387	invasion protein - Ha	4.48e+01
81	50	51.5	196	2	E64101	XP group C protein -	4.48e+01
82	50	51.5	211	2	S60328	probable lysophosphol	4.48e+01
83	50	51.5	239	2	A71552	2-hydroxy-6-oxohepta	4.48e+01
84	50	51.5	276	2	JH0245	2-hydroxy-6-oxohepta	4.48e+01
85	50	51.5	283	2	S10773	probable ATP-binding	4.48e+01
86	50	51.5	349	2	D64134	probable membrane pro	4.48e+01
87	50	51.5	467	2	S64450	probable membrane pro	4.48e+01
88	50	51.5	467	2	S61141	probable membrane pro	4.48e+01
89	50	51.5	659	2	S30893	nuc protein - Smech	4.48e+01
90	50	51.5	900	2	S70630	xeroderma pigmentosum	4.48e+01
91	50	51.5	2179	1	GNNYH4	genome polyprotein -	4.48e+01
92	49	50.5	37	2	G71351	probable ribosomal pr	6.54e+01
93	49	50.5	273	2	B31479	env polyprotein precu	6.54e+01
94	49	50.5	281	1	A47629	cell surface glycopro	6.54e+01
95	49	50.5	477	2	E71436	hypothetical protein	6.54e+01
96	49	50.5	766	2	G71437	probable resistance g	6.54e+01

97	49	50.5	861	1	VCLJSC	env polyprotein prenu	6.54e+01
98	49	50.5	1032	1	5A7514	RNA helicase HEL117 -	6.54e+01
99	49	50.5	1256	2	C71436	probable resistance g	6.54e+01
100	49	50.5	2467	2	D71437	probable resistance g	6.54e+01
ALIGNMENTS							
RESULT	1						
ENTRY	A60299	#type complete					
TITLE	monocyte chemoattractant protein 1 precursor - human						
ALTERNATE_NAMES	GDCF-1; glioma-derived monocyte chemotactic factor 1; MCAF; MCP-1; monocyte chemotactic factor 1; monocyte secretory protein; tumor-derived chemotactic factor						
CONTAINS	glioma-derived chemotactic factor 2 (GDCF-2)						
ORGANISM	Homo sapiens						
DATE	20-Feb-1993 #sequence_revision 20-Feb-1993 #text_change 20-Mar-1998						
ACCESSIONS	A35474; A33476; S03339; I51841; A60299; A32300; A33396; A34561; I57488; JCI096						
REFERENCE							
#authors	Shyy, Y.J.; Li, Y.S.; Kolattukudy, P.E.						
#journal	Biochem. Biophys. Res. Commun. (1990) 169:346-351						
#title	Structure of human monocyte chemotactic protein gene and its regulation by TPA.						
#cross-references	MUID:90290466						
#accession	A33474						
#molecule-type	DNA						
#residues	1-99 ##label SHY						
REFERENCE							
#cross-references	GB:M37719; NID:g187447; PID:g487124						
#journal	A33476						
#authors	Rollins, B.J.; Stier, P.; Ernst, T.; Wong, G.G.						
#journal	Mol. Cell. Biol. (1989) 9:4687-4695						
#title	The human homolog of the JE gene encodes a monocyte secretory protein.						
#cross-references	MUID:90097880						
#accession	A33476						
#molecule-type	mRNA						
#residues	1-99 ##label ROL						
#cross-references	GB:M30816; GB:M31625; GB:M31626; NID:g188701; PID:g386961						
REFERENCE							
#authors	Yoshimura, T.; Yuhki, N.; Moore, S.K.; Appella, E.; Lerman, M.I.; Leonard, E.J.						
#journal	FEBS Lett. (1989) 244:487-493						
#title	Human monocyte chemoattractant protein-1 (MCP-1). Full-length cDNA cloning, expression in mitogen-stimulated blood mononuclear leukocytes, and sequence similarity to mouse competence gene JE.						
#cross-references	MUID:89153605						
#accession	S03339						
#status	not compared with conceptual translation						
#molecule-type	mRNA						
#residues	1-99 ##label YOS						
#cross-references	GB:X14768; NID:g34513; PID:g34514						
#experimental_source	glioma cell line U-105MG						
REFERENCE							
#authors	Yoshimura, T.; Leonard, E.J.						
#journal	Adv. Exp. Med. Biol. (1991) 305:47-56						
#title	Human monocyte chemoattractant protein-1 (MCP-1).						
#cross-references	MUID:92095166						
#accession	I51841						
#status	preliminary; translated from GB/EMBL/DBJ						
#molecule-type	mRNA						
#residues	1-99 ##label Y02						
#cross-references	GB:S71513; NID:g240867; PID:g240868						
REFERENCE							
#authors	Boltzai, B.; Colotta, F.; Sica, A.; Nobili, N.; Mantovani, A.						
#journal	Int. J. Cancer (1990) 45:795-797						
#title	A chemoattractant expressed in human sarcoma cells (tumor-derived chemotactic factor, TDCF) is identical to monocyte chemoattractant protein-1/monocyte chemotactic and						

#accession	A60299	activating factor (MCP-1/MCAF).
#status	not compared with conceptual translation	
#molecule-type	mRNA	
#residues	1-99 ##label BOT	
REFERENCE	A32300	
#authors	Futani, Y.; Nomura, H.; Notake, M.; Oyama, Y.; Fukui, T. Yamada, M.; Larsen, C.G.; Oppenheim, J.J.; Matsushima, K. Biochem. Biophys. Res. Commun. (1989) 159:249-255	
#journal	Cloning and sequencing of the cDNA for human monocyte chemotactic and activating factor (MCAF).	
#title	Chemotactic and activating factor (MCAF).	
#cross-references	MUID:89165862	
#accession	A33300	
#status	not compared with conceptual translation	
#molecule-type	mRNA	
#residues	1-99 ##label FUR	
#cross-references	GB:M24545; NID:g187434; PID:g307163	
REFERENCE	A32396	
#authors	Robinson, E.A.; Yoshimura, T.; Leonard, E.J.; Tanaka, S.; Griffin, P.R.; Shabnowitz, J.; Hunt, D.F.; Appella, E. Proc. Natl. Acad. Sci. U.S.A. (1989) 86:1850-1854	
#journal	Complete amino acid sequence of a human monocyte chemoattractant, a putative mediator of cellular immune reactions.	
#title	Chemoattractant, a putative mediator of cellular immune reactions.	
#cross-references	MUID:89184525	
#accession	A32396	
#molecule-type	protein	
#residues	'X', 25-99 ##label ROB	
REFERENCE	A34561	
#authors	Decock, B.; Conings, R.; Lenaerts, J.P.; Billiau, A.; Van Damme, J. Biochem. Biophys. Res. Commun. (1990) 167:904-909	
#journal	Identification of the monocyte chemotactic protein from human osteosarcoma cells and monocytes: detection of a novel N-terminally processed form.	
#title	Identification of the monocyte chemotactic protein from human osteosarcoma cells and monocytes: detection of a novel N-terminally processed form.	
#cross-references	MUID:90211336	
#accession	A34561	
#molecule-type	protein	
#residues	29-33,'XX',36-52;82-92 ##label DEC	
REFERENCE	I57488	
#authors	Li, Y.S.; Shyy, Y.J.; Wright, J.G.; Valente, A.J.; Cornhill, J.F.; Kolattukudy, P.E. Mol. Cell. Biochem. (1993) 126:61-68	
#journal	The expression of monocyte chemotactic protein (MCP-1) in human vascular endothelium in vitro and in vivo.	
#title	The expression of monocyte chemotactic protein (MCP-1) in human vascular endothelium in vitro and in vivo.	
#cross-references	MUID:94150478	
#accession	I57488	
#status	translated from GB/EMBL/DBJ	
#molecule-type	mRNA	
#residues	1-99 ##label LIY	
#cross-references	GB:S69738; NID:g545464; PID:g545465	
REFERENCE	JCI096	
#authors	Ye, O.N.; Su, G.F.; Yuan, Y.; Huang, C.F. Chinese J. Microbiol. Immunol. (1994) 14:29-32	
#journal	The PCR, cloning and sequencing of human monocyte chemoattractant protein-1 (MCP-1) gene.	
#title	Chemotactant protein-1 (MCP-1) gene.	
#accession	JCI096	
#molecule-type	mRNA	
#residues	24-28,'Q',30-99 ##label YEQ	
GENETICS		
#gene	GDB:SCYA2	
#cross-references	GDB:125279; OMIM:158105	
#map_position	17q11.2-17q12	
CLASSIFICATION	#superfamily macrophage inflammatory protein cytokine; glycoprotein; inflammation; pyroglyutamic acid	
KEYWORDS		
FEATURE		
1-23		
24-99		
29-99	#domain signal sequence #status predicted #label SIG\	
	#product monocyte chemoattractant protein 1 #status experimental #label MAT\	
	#status experimental #label MAT2\	
24	#modified site pyrrolidone carboxylic acid (Gln) (in mature form) #status experimental\	

```
37      #binding_site carbohydrate (Asn) (covalent) #status
SUMMARY      #length 99 #molecular-weight 11025 #checksum 7984
Query Match      100.0%; Score 97; DB 2; Length 99;
Best Local Similarity 100.0%; Pred. No. 1.33e-08;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db      73 EICADPKOKRWQ 84
        |||:|||||
QY      1 EICADPKOKRWQ 12

RESULT      2
ENTRY      JC2136      #type complete
TITLE      monocytic chemottractant protein-1 precursor - pig
ORGANISM   #formal_name Sus scrofa domestica #common_name domestic pig
DATE       30-Sep-1993 #sequence_revision 20-Aug-1994 #text_change
08-Sep-1997
ACCESSIONS JC2136; S57498
REFERENCE   JC2136
#authors    Hosang, K.; Knoke, I.; Klaudiny, J.; Wempe, F.; Wuttke, W.;
#journal    Biochem. Biophys. Res. Commun. (1994) 199:962-968
#title      Porcine luteal cells express monocytic chemottractant
            protein-1 (MCP-1): Analysis by polymerase chain reaction
            and cDNA cloning.
#accession  JC2136
#molecule_type mRNA
#residues   1-99 ##label HOS
REFERENCE   S57497
#authors     Zach, O.
#submission  Submitted to the EMBL Data Library, July 1994
#accession   S57498
#status      Preliminary
#molecule_type mRNA
#residues    1-99 ##label ZAC
#cross-references EMBL:X79416; NID:9872312; PID:9872313
KEYWORDS     #superfamily macrophage inflammatory protein
            glycoprotein
FEATURE      1-23
24-99      #domain signal sequence #status predicted #label SIG\
            #product monocytic chemottractant protein-1 #status
            predicted #label MAT\
            #binding_site carbohydrate (Asn) (covalent) #status
            predicted
SUMMARY      #length 99 #molecular-weight 10976 #checksum 9768
Query Match      99.0%; Score 96; DB 2; Length 99;
Best Local Similarity 91.7%; Pred. No. 2.24e-08;
Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db      73 EICADPKOKRWQ 84
        |||:|||||
QY      1 EICADPKOKRWQ 12

RESULT      3
ENTRY      A39296      #type complete
TITLE      monocytic chemottractant protein 1 precursor - bovine
ALTERNATE_NAMES monocyte chemotactic factor 1; seminal plasma protein p6
ORGANISM   #formal_name Bos primigenius taurus #common_name cattle
DATE       03-Aug-1992 #sequence_revision 03-Aug-1992 #text_change
31-Oct-1997
ACCESSIONS A39296; B39296
REFERENCE   A39296
#authors     Wempe, F.; Henschen, A.; Scheit, K.H.
#journal     DNA Cell Biol. (1991) 10:671-679
#title       Gene expression and cDNA cloning identified a major basic
            protein constituent of bovine seminal plasma as bovine
            monocytic-chemottractant protein-1 (MCP-1).
            #cross-references MUID:92096117
#accession   A39296

#molecule_type mRNA
#residues    1-99 ##label WEM
#cross-references GB:M84602; GB:M85264; NID:9163394; PID:9163395
#accession   B39296
#molecule_type protein
#residues    50-68, 'X', 70-74, 'X', 76 ##label W82
#experimental_source seminal vesicle
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS       glycoprotein
FEATURE        1-23
24-99      #domain signal sequence #status predicted #label SIG\
            #product monocytic chemottractant protein 1 #status
            predicted #label MAT\
            #binding_site carbohydrate (Asn) (covalent) #status
            predicted
SUMMARY      #length 99 #molecular-weight 11114 #checksum 9401
Query Match      94.8%; Score 92; DB 2; Length 99;
Best Local Similarity 91.7%; Pred. No. 1.78e-07;
Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db      73 EICADPKOKRWQ 84
        |||:|||||
QY      1 EICADPKOKRWQ 12

RESULT      4
ENTRY      JC2336      #type complete
TITLE      monocytic chemottractant protein-1 - bovine
ORGANISM   #formal_name Bos primigenius indicus #common_name zebu cattle
DATE       20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change
03-May-1996
ACCESSIONS JC2336
REFERENCE   JC2336
#authors     Wempe, F.; Kuhlmann, J.K.; Scheit, K.H.
#journal     Biochem. Biophys. Res. Commun. (1994) 202:1272-1279
#title       Characterization of the bovine monocytic chemottractant
            protein-1 gene.
#accession   JC2336
#molecule_type protein
#residues    1-99 ##label WEM
GENETICS     #gene MCP-1
            #introns 26/1; 65/2
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY      #length 99 #molecular-weight 11114 #checksum 9401
Query Match      94.8%; Score 92; DB 2; Length 99;
Best Local Similarity 91.7%; Pred. No. 1.78e-07;
Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db      73 EICADPKOKRWQ 84
        |||:|||||
QY      1 EICADPKOKRWQ 12

RESULT      5
ENTRY      I46857      #type complete
TITLE      monocytic chemottractant protein-1 - rabbit
ALTERNATE_NAMES #formal_name Oryctolagus cuniculus #common_name domestic
ORGANISM   rabbit
DATE       14-Feb-1997 #sequence_revision 14-Feb-1997 #text_change
09-May-1997
ACCESSIONS I46857
REFERENCE   I46857
#authors     Yoshimura, T.; Yuhki, N.
#journal     J. Immunol. (1991) 146:3483-3488
#title       Neutrophil attractant/activation protein-1 and monocytic
            chemottractant protein-1 in rabbit: cDNA cloning and their
            expression in spleen cells.
            #cross-references MUID:91225489
#accession   I46857
#status      Preliminary; translated from GB/EMBL/DBJ
```

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##molecule_type mRNA
##residues 1-125 ##label YOS
##cross-references GB:M57440; NID:q165469; PID:q165470
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 125 #molecular-weight 13776 #checksum 4498

Query Match
Best Local Similarity 100.0%; Pred. No. 2.97e-07;
Matches 11: Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 74 ICADPDKRWQ 84
| | | | | | | | | |
OY 2 ICADPDKRWQ 12

RESULT 6
ENTRY A54678 #type complete
TITLE monocytic chemotactic protein 3 precursor - human
ALTERNATE_NAMES monocytic chemotactant protein MCP-3
ORGANISM #formal_name Homo sapiens #common_name man
DATE 28-Oct-1994 #sequence_revision 28-Oct-1994 #text_change
24-Sep-1998
ACCESSIONS A54678; JCI1478; S32222
REFERENCE A54678
#authors Opendakker, G.; Froyen, G.; Fiten, P.; Proost, P.; Van Damme, J.;
#journal Genomics (1994) 21:403-408
#title The human MCP-3 gene (SCYA7): cloning, sequence analysis, and assignment to the C-C chemokine gene cluster on chromosome 17q11.2-q12.

#accession A54678
##molecule_type DNA
##residues 1-109 ##label OPD
##cross-references GB:X72309
REFERENCE JCI1478
#authors Opendakker, G.; Froyen, G.; Fiten, P.; Proost, P.; Van Damme, J.
#journal Biochem. Biophys. Res. Commun. (1993) 191:535-542
#title Human monocyte chemotactic protein-3 (MCP-3): Molecular cloning of the cDNA and comparison with other chemokines.
#accession JCI1478
##molecule_type mRNA
##residues 1-109 ##label OP2
REFERENCE S32222
#authors Minty, A.; Chalon, P.; Guillemot, J.C.; Kaghad, M.; Llaunay, P.; Magazian, M.; Miloux, B.; Minty, C.; Ramond, P.; Vita, N.; Lupter, J.; Shire, D.; Ferrara, P.; Caput, D.
#submission Submitted to the EMBL Data Library, March 1993
#description Molecular cloning of MCP-3: a human monocyte-derived monocyte chemotactant protein.
#accession S32222
##molecule_type mRNA
##residues 1-109 ##label MIN
##cross-references EMBL:X71087; NID:q288396; PID:q288397
COMMENT This protein induces proteinase secretion and chemotaxis by macrophages and monocytes.

GENETICS
#gene GDB:SCYA7; SCYA6; MCP-3
#map_position 17q11.1-17q12
#introns 36/1: 75/2
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS cytokine; glycoprotein; inflammation
FEATURE
1-33 #domain signal sequence #status predicted #label SIG\
34-109 #product monocyte chemotactic protein 3 #status predicted #label MAT\
#binding_site carbohydrate (Asn) (covalent) #status predicted
39 #length 109 #molecular-weight 12356 #checksum 1535
SUMMARY #length 109 #molecular-weight 12356 #checksum 1535

Query Match
Best Local Similarity 92.8%; Score 90; DB 2; Length 109;
91.7%; Pred. No. 4.96e-07;

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Matches 11: Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 83 EICADPDKRWQ 94
| | | | | | | | | |
OY 1 EICADPDKRWQ 12

RESULT 7
ENTRY JC2417 #type complete
TITLE monocytic chemotactant protein-2 - pig
ORGANISM #formal_name Sus scrofa domestica #common_name domestic pig
DATE 24-Feb-1995 #sequence_revision 24-Feb-1995 #text_change
03-May-1996
ACCESSIONS JC2417
REFERENCE JC2417
#authors Hosang, K.; Knoke, I.; Klaudiny, J.; Wempe, F.; Wutke, W.; Scheit, K.H.
#journal Blochem. Biophys. Res. Commun. (1994) 205:148-153
#title Porcine luteal cells express monocyte chemotactant protein-2 (MCP-2): Analysis by cDNA cloning and northern analysis.

#accession JC2417
##molecule_type mRNA
##residues 1-99 ##label HOS
##cross-references EMBL:M19855; NID:q349820; PID:q349821
REFERENCE JC2417
#authors Yoshimura, T.
#journal J. Immunol. (1993) 150:5025-5032
#title cDNA cloning of guinea pig monocyte chemotactant protein-1 and expression of the recombinant protein.
#accession I48147
##molecule_type mRNA
##residues 1-120 ##label RRS
##cross-references GB:L04985; NID:q349820; PID:q349821
COMMENT preliminary; translated from GB/EMBL/DBJ

GENETICS
#gene MCP-1
#map_position 17q11.1-17q12
#introns 36/1: 75/2
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 120 #molecular-weight 13741 #checksum 9352

Query Match
Best Local Similarity 83.3%; Pred. No. 1.37e-06;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 71 EVCADPDKRWQ 82
| | | | | | | | | |
OY 1 EICADPDKRWQ 12

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RESULT 9
ENTRY JC4912 #type complete
TITLE eotaxin - human
ORGANISM #formal_name Homo sapiens #common_name man
DATE 01-Nov-1996 #sequence_revision 01-Nov-1996 #text_change
08-Sep-1997
ACCESSIONS JC4912
REFERENCE JC4912
#authors Bartels, J.; Schueter, C.; Richter, E.; Noso, N.; Kulke, R.;
#journal Christophers, E.; Schroeder, J.M.
#title Blochem. Biophys. Res. Commun. (1996) 225:1045-1051
Human dermal fibroblasts express eotaxin: Molecular cloning,
mRNA expression, and identification of eotaxin sequence
variants.
#accession JC4912
#status Preliminary
#molecule_type mRNA
#residues 1-97 #label BAR
#cross-references EMBL:275668; NID:g1531982; PID:e251275; PID:g1531983
COMMENT This protein has eosinophil specific chemotactic activity.
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS fibroblast
FEATURE 1-18
19-97 #domain signal sequence #status predicted #label SIG
SUMMARY #product eotaxin #status predicted #label MAT
#length 97 #molecular_weight 10790 #checksum 448
Query Match 88.7%; Score 86; DB 2; Length 97;
Best Local Similarity 75.0%; Pred. No. 3.77e-06;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
Db 71 ICADPKKRWQ 82
Qy 1 ICADPKKRWQ 12
RESULT 10
ENTRY JN0841 #type complete
TITLE interleukin-8 - dog
ORGANISM #formal_name Canis lupus familiaris #common_name dog
DATE 19-May-1994 #sequence_revision 19-May-1994 #text_change
12-Apr-1995
ACCESSIONS JN0841
REFERENCE JN0841
#authors Ishikawa, J.; Suzuki, S.; Hotta, K.; Hirota, Y.; Mizuno, S.;
#journal Suzuki, K.
#title Gene (1993) 131:305-306
Cloning of a canine gene homologous to the human
interleukin-8-encoding gene.
#accession JN0841
#molecule_type DNA
#residues 1-95 #label ISH
COMMENT This protein is a polymorphonuclear leukocytes chemotactic factor
and is involved in the host defense function.
GENETICS 22/1: 67/2
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 95 #molecular_weight 10611 #checksum 3157
Query Match 86.6%; Score 84; DB 2; Length 95;
Best Local Similarity 75.0%; Pred. No. 1.03e-05;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
Db 75 EVCLDPKKRWQ 86
Qy 1 ICADPKKRWQ 12
RESULT 11
ENTRY JC2478 #type complete
TITLE eotaxin - rat
ORGANISM #formal_name Rattus norvegicus #common_name Norway rat

DATE 21-Feb-1995 #sequence_revision 05-Apr-1995 #text_change
08-Sep-1997
ACCESSIONS JC2478
REFERENCE JC2478
#authors Jose, P.J.; Adcock, I.M.; Griffiths-Johnson, D.A.; Berkman,
#journal N.; Wells, T.N.C.; Williams, T.F.; Power, C.A.;
#title Blochem. Biophys. Res. Commun. (1994) 205:788-794
Eotaxin: Cloning of an eosinophil chemottractant cytokine
and increased mRNA expression in allergen-challenged
guinea-pig lungs.
#accession JC2478
#molecule_type mRNA
#residues 1-96 #label JOS
#cross-references EMBL:X77603; NID:g602551; PID:g602552
COMMENT This protein is identified as a potent eosinophil chemoattractant.
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS glycoprotein
FEATURE 1-23
24-96 #domain signal sequence #status predicted #label SIG
93 #product eotaxin #status predicted #label MAT
#binding_site carbohydrate (Thr) (covalent) #status
predicted
SUMMARY #length 96 #molecular_weight 10695 #checksum 7329
Query Match 86.6%; Score 84; DB 2; Length 96;
Best Local Similarity 90.9%; Pred. No. 1.03e-05;
Matches 10; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
Db 71 ICADPKKRWQ 81
Qy 2 ICADPKKRWQ 12
RESULT 12
ENTRY I48099 #type complete
TITLE eotaxin precursor - guinea pig
ORGANISM #formal_name Cavia porcellus #common_name guinea pig
DATE 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change
09-May-1997
ACCESSIONS I48099
REFERENCE I48099
#authors Rothenberg, M.E.; Luster, A.D.; Lilly, C.M.; Drazen, J.M.;
#journal Leder, P.
#title J. Exp. Med. (1995) 181:1211-1216
Constitutive and allergen-induced expression of eotaxin mRNA
in the guinea pig lung.
#cross-references MIMD:95173589
#accession I48099
#status Preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-96 #label RES
#cross-references EMBL:U18941; NID:g687655; PID:g687656
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 96 #molecular_weight 10753 #checksum 7236
Query Match 86.6%; Score 84; DB 2; Length 96;
Best Local Similarity 90.9%; Pred. No. 1.03e-05;
Matches 10; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
Db 71 ICADPKKRWQ 81
Qy 2 ICADPKKRWQ 12
RESULT 13
ENTRY I46997 #type complete
TITLE interleukin-8 - sheep
ORGANISM #formal_name Ovis sp. #common_name sheep
DATE 21-Feb-1997 #sequence_revision 21-Feb-1997 #text_change
09-May-1997
ACCESSIONS I46997
REFERENCE I46997
#authors Secow, H.F.; Yoshimura, T.; Wood, P.R.; Colditz, I.G.

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#journal      Immunol: Cell Biol. (1994) 72:398-405
#title        Cloning, sequencing, expression and inflammatory activity in
#             skin of ovine interleukin-8.
#cross-references M0ID:95137691
#accession    I46997
#status       Preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues     1-101 ##label SEO
#cross-references GB:S74436; NID:g786590; PID:g786591
GENETICS
#gene         OIL-8
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY       #length 101 #molecular-weight 11292 #checksum 294

Query Match   86.6%; Score 84; DB 2; Length 101;
Best Local Similarity 75.0%; Pred. No. 1.03e-05;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 75 EVCLDPKRWQ 86
|:|:|:|:|:|
QY 1 EICADPKRWQ 12

RESULT 14
ENTRY      S42496 #type complete
TITLE      interleukin 8 - sheep
ORGANISM   #common_name Ovis orientalis aries, Ovis ammon aries
            #formal_name Ovis domestic sheep
            #accession S42496
            #cross-references EMBL:X78306; NID:g463253; PID:g463254
            #superfamily beta-thromboglobulin
SUMMARY     #length 101 #molecular-weight 11292 #checksum 294

Query Match   86.6%; Score 84; DB 2; Length 101;
Best Local Similarity 75.0%; Pred. No. 1.03e-05;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 75 EVCLDPKRWQ 86
|:|:|:|:|:|
QY 1 EICADPKRWQ 12

RESULT 15
ENTRY      A53096 #type complete
TITLE      interleukin-8 precursor - pig
ORGANISM   #formal_name Sus scrofa domestica #common_name domestic pig
            #accession A53096
            #cross-references EMBL:U22414; NID:g790632; PID:g790633
            #superfamily beta-thromboglobulin
SUMMARY     #length 101 #molecular-weight 11292 #checksum 294

Query Match   86.6%; Score 84; DB 2; Length 101;
Best Local Similarity 75.0%; Pred. No. 1.03e-05;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 75 EVCLDPKRWQ 86
|:|:|:|:|:|
QY 1 EICADPKRWQ 12

RESULT 16
ENTRY      A44253 #type complete
TITLE      alveolar macrophage chemotactic factor-I (AMCF-I)
ORGANISM   #formal_name Sus scrofa domestica #common_name domestic pig
            #accession A44253
            #cross-references M0ID:93041741
            #status Preliminary
            #molecule_type mRNA; protein
            #residues 1-103 ##label GOO
            #experimental_source alveolar macrophage
            #note sequence extracted from NCBI backbone (NCBIN:117415,
            NCBIP:117416)
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY       #length 103 #molecular-weight 11677 #checksum 8904

Query Match   86.6%; Score 84; DB 2; Length 103;
Best Local Similarity 75.0%; Pred. No. 1.03e-05;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 75 EVCLDPKRWQ 86
|:|:|:|:|:|
QY 1 EICADPKRWQ 12

RESULT 17
ENTRY      I52322 #type complete
TITLE      macrophage inflammatory protein-1alpha - rat
ORGANISM   #formal_name Rattus norvegicus #common_name Norway rat
            #accession I52322
            #cross-references EMBL:U22414; NID:g790632; PID:g790633
            #superfamily beta-thromboglobulin
SUMMARY     #length 92 #molecular-weight 10335 #checksum 3184

Query Match   85.6%; Score 83; DB 2; Length 92;
Best Local Similarity 75.0%; Pred. No. 1.69e-05;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 71 QICADPKRWQ 82

```

```

#journal      Immunol: Cell Biol. (1994) 72:398-405
#title        Cloning, sequencing, expression and inflammatory activity in
#             skin of ovine interleukin-8.
#cross-references M0ID:95137691
#accession    I46997
#status       Preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues     1-101 ##label SEO
#cross-references GB:S74436; NID:g786590; PID:g786591
GENETICS
#gene         OIL-8
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY       #length 101 #molecular-weight 11292 #checksum 294

Query Match   86.6%; Score 84; DB 2; Length 101;
Best Local Similarity 75.0%; Pred. No. 1.03e-05;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 75 EVCLDPKRWQ 86
|:|:~:~:~:~:~:~
QY 1 EICADPKRWQ 12

RESULT 14
ENTRY      S42496 #type complete
TITLE      interleukin 8 - sheep
ORGANISM   #common_name Ovis orientalis aries, Ovis ammon aries
            #formal_name Ovis domestic sheep
            #accession S42496
            #cross-references EMBL:X78306; NID:g463253; PID:g463254
            #superfamily beta-thromboglobulin
SUMMARY     #length 101 #molecular-weight 11292 #checksum 294

Query Match   86.6%; Score 84; DB 2; Length 101;
Best Local Similarity 75.0%; Pred. No. 1.03e-05;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 75 EVCLDPKRWQ 86
|:~:~:~:~:~:~
QY 1 EICADPKRWQ 12

RESULT 15
ENTRY      A53096 #type complete
TITLE      interleukin-8 precursor - pig
ORGANISM   #formal_name Sus scrofa domestica #common_name domestic pig
            #accession A53096
            #cross-references EMBL:U22414; NID:g790632; PID:g790633
            #superfamily beta-thromboglobulin
SUMMARY     #length 101 #molecular-weight 11292 #checksum 294

Query Match   86.6%; Score 84; DB 2; Length 101;
Best Local Similarity 75.0%; Pred. No. 1.03e-05;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 75 EVCLDPKRWQ 86
|:~:~:~:~:~:~
QY 1 EICADPKRWQ 12

RESULT 16
ENTRY      A44253 #type complete
TITLE      alveolar macrophage chemotactic factor-I (AMCF-I)
ORGANISM   #formal_name Sus scrofa domestica #common_name domestic pig
            #accession A44253
            #cross-references M0ID:93041741
            #status Preliminary
            #molecule_type mRNA; protein
            #residues 1-103 ##label GOO
            #experimental_source alveolar macrophage
            #note sequence extracted from NCBI backbone (NCBIN:117415,
            NCBIP:117416)
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY       #length 103 #molecular-weight 11677 #checksum 8904

Query Match   86.6%; Score 84; DB 2; Length 103;
Best Local Similarity 75.0%; Pred. No. 1.03e-05;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 75 EVCLDPKRWQ 86
|:~:~:~:~:~:~
QY 1 EICADPKRWQ 12

RESULT 17
ENTRY      I52322 #type complete
TITLE      macrophage inflammatory protein-1alpha - rat
ORGANISM   #formal_name Rattus norvegicus #common_name Norway rat
            #accession I52322
            #cross-references EMBL:U22414; NID:g790632; PID:g790633
            #superfamily beta-thromboglobulin
SUMMARY     #length 92 #molecular-weight 10335 #checksum 3184

Query Match   85.6%; Score 83; DB 2; Length 92;
Best Local Similarity 75.0%; Pred. No. 1.69e-05;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 71 QICADPKRWQ 82

```

```
QY      1 EICADPKOKWQ 12      :|||||: |||
                                           structural relationship to interleukin 8.
                                           #cross-references MUID:91058518
                                           #accession S13052
                                           #molecule_type protein
                                           #residues 23-33,'X','35','X','37-46','X','48-49','I','51-53 #label BEA
CLASSIFICATION #superfamily beta-thromboglobulin
KEYWORDS cytokine
SUMMARY #length 101 #molecular-weight 11402 #checksum 1085

Query Match      83.5%; Score 81; DB 2; Length 101;
Best Local Similarity 75.0%; Pred. No. 4,55e-05;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db      75 EICLDPKREKWWQ 86      :|:|||||: |||
QY      1 EICADPKOKWQ 12

RESULT  20
ENTRY   A30209 #type complete
TITLE   PDGF-inducible JE glycoprotein precursor - mouse
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE    01-Dec-1989 #sequence_revision 01-Dec-1989 #text_change
ACCESSIONS
REFERENCE #authors A30209; A44771; A30861
          #journal Rollins, B.J.; Morrison, E.D.; Stiles, C.D.
          #title Proc. Natl. Acad. Sci. U.S.A. (1988) 85:3738-3742
          #cross-references GB:M19681; NID:G193486; PID:G387168; GB:M19682
          #accession A30209
          #molecule_type DNA
          #residues 1-148 #label ROL
          #cross-references GB:M19681; NID:G193486; PID:G387168; GB:M19682
REFERENCE #authors A44771
          #journal Kawahara, R.S.; Deuel, T.F.
          #title J. Biol. Chem. (1989) 264:679-682
          #title Platelet-derived growth factor-inducible gene JE is a member
          #title of a family of small inducible genes related to platelet
          #title factor 4.
          #accession A44771
          #molecule_type DNA; mRNA
          #residues 1-148 #label KA2
          #cross-references GB:J04467; NID:G193488; PID:G387169
GENETICS
#gene JE
#introns 26/1; 65/2
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS cytokine; glycoprotein
FEATURE 126 #binding-site carbohydrate (asn) (covalent) #status
          predicted
SUMMARY #length 148 #molecular-weight 16326 #checksum 5278

Query Match      82.5%; Score 80; DB 2; Length 148;
Best Local Similarity 75.0%; Pred. No. 7,44e-05;
Matches 9; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db      73 EVCADPKREKWWQ 84      :|||||: |||
QY      1 EICADPKOKWQ 12

RESULT  21
ENTRY   A32393 #type complete
TITLE   macrophage inflammatory protein-1-alpha precursor - mouse
ALTERNATE_NAMES heparin-binding chemotaxis protein; L2G25B protein;
                  SGI/MIP-1a; SIS alpha; stem cell inhibitor/macrophage
                  inflammatory protein 1-alpha; T-cell activation protein
                  alpha; IT5
ORGANISM #formal_name Mus musculus #common_name house mouse
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DATE      17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change
ACCESSIONS 08-Sep-1997
           S11685; A32393; S04533; A53885; A30552; PS0303; A27596;
REFERENCE   #authors      S11685
           #journal      Grove, M.; Lowe, S.; Graham, G.; Pragnell, I.; Plumb, M.
           #title        Nucleic Acids Res. (1990) 18:5561
           #cross-references GB:J04491; NID:9201524; PID:9201525
           #accession     S11685
           #molecule_type DNA
           #residues      1-92 ##label GRO
           ##cross-references EMBL:X53372; NID:954062; PID:9297531
           ##note          the authors' translation of the nucleotide sequence
                           differs at several positions from the sequence given
REFERENCE   #authors      A32393
           #journal      Kwon, B.S.; Weissman, S.M.
           #title        Proc. Natl. Acad. Sci. U.S.A. (1989) 86:1963-1967
           #cross-references M01D:89184547
           #accession     A32393
           #molecule_type mRNA
           #residues      1-92 ##label KWO
           ##cross-references GB:J04491; NID:9201524; PID:9201525
REFERENCE   #authors      S04533
           #journal      Davatelis, G.; Tekamp-Olson, P.; Wolpe, S.D.; Hermesen, K.;
           #title        Luedke, C.; Gallegos, C.; Colt, D.; Merryweather, J.;
                           Cerami, A.
           #cross-references EMBL:X12531
           #accession     S04533
           #molecule_type mRNA
           #residues      1-48, 'E', '50-90', 'I', '92 ##label Dn2
           ##cross-references EMBL:X12531
           ##note          the authors translated the codon GAG for residue 49 as
                           Asp and Art for residue 91 as Asn
                           the sequence has been corrected in reference A53885
REFERENCE   #authors      A53885
           #journal      Davatelis, G.; Tekamp-Olson, P.; Wolpe, S.D.; Hermesen, K.;
           #contents      Luedke, C.; Gallegos, C.; Colt, D.; Merryweather, J.;
                           Cerami, A.
           #accession     A53885
           #molecule_type mRNA
           #residues      1-92 ##label DAV
           ##cross-references EMBL:X12531; NID:953122; PID:953123
REFERENCE   #authors      A30552
           #journal      Brown, K.D.; Zurawski, S.M.; Nossman, T.R.; Zurawski, G.
           #title        J. Immunol. (1989) 142:679-687
           #cross-references GB:M23447; NID:9533240; PID:9533241
           #accession     A30552
           #molecule_type mRNA
           #residues      1-21, 'L', '23-61', 'A', '63-92 ##label BRO
           ##cross-references GB:M23447; NID:9533240; PID:9533241
REFERENCE   #authors      J00088
           #journal      Sherry, B.; Tekamp-Olson, P.; Gallegos, C.; Bauer, D.;
           #title        Davatelis, G.; Wolpe, S.D.; Mastiarz, F.; Colt, D.; Cerami,
                           A.
           #cross-references GB:M23447; NID:9533240; PID:9533241
           #accession     PS0303
           #journal      J. Exp. Med. (1988) 168:2251-2259
           #title        Resolution of the two components of macrophage inflammatory
                           protein 1, and cloning and characterization of one of those
                           components, macrophage inflammatory protein 1 beta.
           #cross-references M01D:89067830
           #accession     PS0303

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           ##molecule_type mRNA
           #residues      24-33, 'XX', '36-54 ##label SHE
REFERENCE   #authors      A27596
           #journal      Wolpe, S.D.; Davatelis, G.; Sherry, B.; Beutler, B.; Heese,
           #title        D.G.; Nguyen, H.T.; Moldawer, L.L.; Nathan, C.F.; Lowry,
                           S.F.; Cerami, A.
           #cross-references M01D:88154745
           #accession     A27596
           #molecule_type protein
           #residues      24-33 'XX', '36-42 ##label WOI
           ##note          26-Met, 30-Pro, and 39-Thr were also found
REFERENCE   #authors      I56104
           #journal      Wilmer, U.; Yang, Z.; Van Deventer, S.; Manogue, K.R.;
           #title        Sherry, B.; Cerami, A.
                           J. Immunol. (1991) 146:4031-4040
           #cross-references M01D:91237116
           #accession     I56104
           #status          preliminary; translated from GB/EMBL/DBJ
           ##molecule_type DNA
           #residues      1-92 ##label RES
           ##cross-references GB:M73061; NID:9199694; PID:9199695
COMMENT     #This protein is a monokine.
GENETICS    #introns      23/3; 26/1; 63/2
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS     heparin binding
FEATURE      1-23          #domain signal sequence #status predicted #label sig\
                           #product macrophage inflammatory protein #status
                           experimental #label MAT
                           24-92          #length 92 #molecular_weight 10345 #checksum 5009
SUMMARY      Query Match      78.4%: Score 76; DB 2; Length 92;
                           Best Local Similarity 66.7%: Pred. No. 5.18e-04;
                           Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;
Db      71 QICADSKETWQ 82
QY      1 EICADPKQKWQ 12
RESULT      22
ENTRY       S07723 #type complete
TIME        Immediate-early serum-responsive protein JE - rat
ALTERNATE_NAMES
ORGANISM    monocyte chemoattractant protein-1
DATE        #formal_name Rattus norvegicus #common_name Norway rat
           29-Jan-1993 #sequence_revision 29-Jan-1993 #text_change
           08-Sep-1997
ACCESSIONS  S07723; J00128
REFERENCE   #authors      S07723
           #journal      Timmers, H.T.M.; Pronk, G.J.; Bos, J.L.; van der Eb, A.J.
           #title        Nucleic Acids Res. (1990) 18:23-34
                           Analysis of the rat JE gene promoter identifies an AP-1
                           binding site essential for basal expression but not for TPA
                           induction.
           #cross-references M01D:90174947
           #accession     S07723
           #molecule_type DNA
           #residues      1-148 ##label TIM
           ##cross-references EMBL:X17053; NID:955530; PID:955531
REFERENCE   #authors      J00128
           #journal      Yoshimura, T.; Takeya, M.; Takahashi, K.
           #title        Biochem. Biophys. Res. Commun. (1991) 174:504-509
                           Molecular cloning of rat monocyte chemoattractant protein-1
                           (MCP-1) and its expression in rat spleen cells and tumor
                           cell lines.
           #cross-references M01D:91128376

```

#accession JN0128
#molecule_type mRNA
#residues 1-148 ##label YOS
#cross-references GB:M57441; NID:g205333; PID:g205334
#experimental_source spleen cells
#note the authors translated the codon GAA for residue 62 as
Lys and GCT for residue 63 as Leu

GENETICS
#introns 26/1; 65/2
CLASSIFICATION #superfamily macrophage inflammatory protein
FEATURE
1-23
24-148
#domain signal sequence #status predicted #label SIG
#product immediate-early serum-responsive protein JE
#status predicted #label MAT
SUMMARY #length 148 #molecular-weight 16460 #checksum 4876

Query Match 78.4%; Score 76; DB 2; Length 148;
Best Local Similarity 75.0%; Pred. No. 5.18e-04;
Matches 9; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 73 EICADPKKRWQ 84
:::|||||:
OY 1 EICADPKKRWQ 12

RESULT 23
ENTRY A53497 #type complete
TITLE pre-B-cell growth-stimulating factor precursor - mouse
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE 02-Jun-1994 #sequence_revision 02-Jun-1994 #text_change
10-Sep-1997
ACCESSIONS A53497; I59582
REFERENCE A53497
#authors Nagasawa, T.; Kikutani, H.; Kishimoto, T.
#journal Proc. Natl. Acad. Sci. U.S.A. (1994) 91:2305-2309
#title Molecular cloning and structure of a pre-B-cell
growth-stimulating factor.
#accession A53497
##status preliminary
##molecule_type mRNA
##residues 1-89 ##label NAG
#cross-references GB:D21072; NID:g413905; PID:d1005177; PID:g468457
REFERENCE I59582
#authors Tashiro, K.; Tada, H.; Heilker, R.; Shirozu, M.; Nakano, T.;
Honjo, T.
#journal Science (1993) 261:600-603
#title Signal sequence trap: a cloning strategy for secreted
proteins and type I membrane proteins.
#cross-references MUID:93342488
#accession I59582
##status preliminary; translated from GB/EMBL/DBJ
##molecule_type mRNA
##residues 1-89 ##label RES
#cross-references GB:L12029; NID:g393179; PID:g393180

GENETICS
#gene SDF-1-alpha
KEYWORDS cytokine
SUMMARY #length 89 #molecular-weight 10032 #checksum 4622

Query Match 77.3%; Score 75; DB 2; Length 89;
Best Local Similarity 58.3%; Pred. No. 8.37e-04;
Matches 7; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Db 69 QVCIDPKLWQ 80
:::|||||:
OY 1 EICADPKKRWQ 12

RESULT 24
ENTRY I53416 #type complete
TITLE interleukin-8 homolog - mouse
ORGANISM #formal_name Mus sp. #common_name mouse
DATE 02-Aug-1996 #sequence_revision 02-Aug-1996 #text_change

28-Feb-1997
ACCESSIONS I53416
REFERENCE I53416
#authors Jiang, W.; Zhou, P.; Kahn, S.M.; Tomita, N.; Johnson, M.D.;
Weinstein, I.B.
#journal Exp. Cell Res. (1994) 215:284-293
#title Molecular cloning of TPRL1, a gene whose expression is
repressed by the tumor promoter 12-O-tetradecanoylphorbol
13-acetate (TPA).
#cross-references MUID:95073497
#accession I53416
##status preliminary; translated from GB/EMBL/DBJ
##molecule_type mRNA
##residues 1-89 ##label RES
#cross-references GB:S74318; NID:g786393; PID:g786394

GENETICS
#gene TPRL1
SUMMARY #length 89 #molecular-weight 10032 #checksum 4622

Query Match 77.3%; Score 75; DB 2; Length 89;
Best Local Similarity 58.3%; Pred. No. 8.37e-04;
Matches 7; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Db 69 QVCIDPKLWQ 80
:::|||||:
OY 1 EICADPKKRWQ 12

RESULT 25
ENTRY G01540 #type complete
TITLE cytokine SDF-1-beta - human
ORGANISM #formal_name Homo sapiens #common_name man
DATE 21-Dec-1996 #sequence_revision 06-Jun-1997 #text_change
17-Jul-1998
ACCESSIONS G01540
REFERENCE G07697
#authors Spottila, L.D.
#submission submitted to the EMBL Data Library, October 1994
#accession G01540
##status preliminary; translated from GB/EMBL/DBJ
##molecule_type mRNA
##residues 1-93 ##label SPO
#cross-references EMBL:U16752; NID:g1272194; PID:g571508
SUMMARY #length 93 #molecular-weight 10666 #checksum 6309

Query Match 77.3%; Score 75; DB 2; Length 93;
Best Local Similarity 58.3%; Pred. No. 8.37e-04;
Matches 7; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Db 69 QVCIDPKLWQ 80
:::|||||:
OY 1 EICADPKKRWQ 12

RESULT 26
ENTRY I81182 #type complete
TITLE cytokine - mouse
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE 02-Aug-1996 #sequence_revision 02-Aug-1996 #text_change
28-Feb-1997
ACCESSIONS I81182
REFERENCE I59582
#authors Tashiro, K.; Tada, H.; Heilker, R.; Shirozu, M.; Nakano, T.;
Honjo, T.
#journal Science (1993) 261:600-603
#title Signal sequence trap: a cloning strategy for secreted
proteins and type I membrane proteins.
#cross-references MUID:93342488
#accession I81182
##status preliminary; translated from GB/EMBL/DBJ
##molecule_type mRNA
##residues 1-93 ##label RES
#cross-references GB:L12030; NID:g393181; PID:g393182

GENETICS
#gene SDF-1-beta
SUMMARY #length 93 #molecular-weight 10561 #checksum 5309

Query Match 77.3%; Score 75; DB 2; Length 93;
Best Local Similarity 58.3%; Pred. No. 8.37e-04;
Matches 7; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Db 69 OYCIPKXKMIQ 80
 :::1111111
Oy 1 EICADPKOKRWQ 12

RESULT 27
ENTRY A37034 #type complete
TITLE interleukin 8 precursor - human
ALTERNATE_NAMES beta-thromboglobulin-like protein; fibroblast-derived neutrophil-activating factor alpha; lung carcinoma-derived chemotaxin; lymphocyte-derived neutrophil-activating factor; monocyte-derived neutrophil chemotactic factor; monocyte-derived neutrophil-activating factor

ORGANISM #formal_name Homo sapiens #common_name man
DATE 08-Dec-1992 #sequence_revision 08-Dec-1992 #text_change 13-Sep-1998

ACCESSIONS A37034; J10041; A32791; S37634; P10107; A28598; A27488; A39960; A60401; A60591; S15827; S04216; A60567; A60847; S15417; S03975; I54560; I55927; I37902; S67519

REFERENCE
#authors A37034
#journal Mukaide, N.; Shiro, M.; Matsushima, K.
#title J. Immunol. (1989) 143:1366-1371
#molecule_type Genomic structure of the human monocyte-derived neutrophil chemotactic factor IL-8.
#cross-references MIM:89309826
#accession A37034
##molecule_type DNA
##residues 1-99 #label MUK
#cross-references GB:M28130; NID:q186367; PID:q186368
#note the authors failed to translate the last thirty-six nucleotides of the second exon

REFERENCE
#authors J10041 Matsushima, K.; Morishita, K.; Yoshimura, T.; Lavu, S.; Kobayashi, Y.; Lew, W.; Appella, E.; Kung, H.F.; Leonard, E.J.; Oppenheim, J.J.
#journal J. Exp. Med. (1988) 167:1883-1893
#title Molecular cloning of a human monocyte-derived neutrophil chemotactic factor (MDNCF) and the induction of MDNCF mRNA by interleukin 1 and tumor necrosis factor.
#cross-references MIM:88258376
#accession J10041
##molecule_type mRNA
##residues 1-99 #label MA1
#cross-references EMBL:Y00787; NID:q34518; PID:q34519
#note the sequence shows similarity to several platelet-derived factors, a v-src-induced protein, a growth-regulated gene product (gro), and an IFN-gamma-inducible protein

REFERENCE
#authors A32791 Kowalski, J.; Denhardt, D.T.
#journal Mol. Cell. Biol. (1989) 9:1946-1957
#title Regulation of the mRNA for monocyte-derived neutrophil-activating peptide in differentiating HL60 promyelocytes.
#cross-references MIM:89313739
#accession A32791
##molecule_type mRNA
##residues 1-99 #label KOW
#cross-references GB:M26383; NID:q188627; PID:q188628

REFERENCE
#authors S37634 King, C.H.; Gordon, G.S.; Konieczkowski, M.; Sedor, J.R.
#submision submitted to the EMBL Data Library, February 1992
#accession S37634
#status preliminary
#molecule_type mRNA

##residues 1-97 #label KIN
#cross-references EMBL:Z11686; NID:q33958; PID:q33959
REFERENCE
#authors P10107
#journal Suzuki, K.; Miyasaka, H.; Ota, H.; Yamakawa, Y.; Tagawa, M.; Kuramoto, A.; Mizuno, S.
#title J. Exp. Med. (1989) 169:1895-1901
#molecule_type Purification and partial primary sequence of a chemotactic protein for polymorphonuclear leukocytes derived from human lung giant cell carcinoma Lu65C cells.
#cross-references MIM:89279141
#accession P10107
##molecule_type protein
##residues 23-32, 'XR', '35', 'X', '37-52', 'L', '54' #label SUZ
#experimental_source lung giant cell carcinoma Lu65C

REFERENCE
#authors A28598 Gregory, H.; Young, J.; Schroeder, J.M.; Mrowietz, U.; Christophers, E.
#journal Biochem. Biophys. Res. Commun. (1988) 151:883-890
#title Structure determination of a human lymphocyte derived neutrophil activating peptide (LYNAP).
#cross-references MIM:88162914
#accession A28598
##molecule_type protein
##residues 28-99 #label GRE

REFERENCE
#authors A27488 Wals, A.; Peveri, P.; Aschauer, H.; Baggiolini, M.
#journal Biochem. Biophys. Res. Commun. (1987) 149:755-761
#title Purification and amino acid sequencing of NAF, a novel neutrophil-activating factor produced by monocytes.
#cross-references MIM:88106502
#accession A27488
##molecule_type protein
##residues 28-59 #label WAL

REFERENCE
#authors A39960 Yoshimura, T.; Matsushima, K.; Tanaka, S.; Robinson, E.A.; Appella, E.; Oppenheim, J.J.; Leonard, E.J.
#journal Proc. Natl. Acad. Sci. U.S.A. (1987) 84:9233-9237
#title Purification of a human monocyte-derived neutrophil chemotactic factor that has peptide sequence similarity to other host defense cytokines.
#cross-references MIM:88097462
#accession A39960
##molecule_type protein
##residues 28-69 #label YOS

REFERENCE
#authors A60401 Schroeder, J.M.; Sticherling, M.; Henneicke, H.H.; Preissner, W.C.; Christophers, E.
#journal J. Immunol. (1990) 144:2223-2232
#title IL-1alpha or tumor necrosis factor-alpha stimulate release of three NAP-1/IL-8-related neutrophil chemotactic proteins in human dermal fibroblasts.
#cross-references MIM:90187866
#accession A60401
##molecule_type protein
##residues 23-32 #label SCH
#experimental_source dermal fibroblasts
#note a minor component of this material (15%) includes an additional two amino acids at the amino end

REFERENCE
#authors A60591 Van Damme, J.; Decock, B.; Conings, R.; Lenaerts, J.P.; Opdenakker, G.; Billiau, A.
#journal Eur. J. Immunol. (1989) 19:1189-1194
#title The chemotactic activity for granulocytes produced by vitally infected fibroblasts is identical to monocyte-derived interleukin 8.
#accession A60591
##molecule_type protein
##residues 23-33, 'X', '35', 'X', '37-42' #label VAN

REFERENCE
#authors S15827 Nakagawa, H.; Hatakeyama, S.; Ikesue, A.; Miyai, H.
#journal FEBS Lett. (1991) 282:412-414
#title Generation of interleukin-8 by plasmin from AVPR-interleukin-8, the human fibroblast-derived

neutrophil chemotactic factor.
#cross-references MUID:91243843
#accession S15827
##molecule_type protein
##residues 23-33,'X',35,'X',37-47 #label FEB
REFERENCE S04216
#authors van Damme, J.; van Beeumen, J.; Conings, R.; Decock, B.; Billiau, A.
#journal Eur. J. Biochem. (1989) 181:337-344
#title Purification of granulocyte chemotactic peptide/interleukin-8 reveals N-terminal sequence heterogeneity similar to that of beta-thromboglobulin.
#cross-references MUID:89231715
#accession S04216
##molecule_type protein
##residues 21-67 #label VA2
REFERENCE A60567
#authors Yoshimura, T.; Robinson, E.A.; Appella, E.; Matsushima, K.; Showalter, S.D.; Skeel, A.; Leonard, E.J.
#journal Mol. Immunol. (1989) 26:87-93
#title Three forms of monocyte-derived neutrophil chemotactic factor (MDNCF) distinguished by different lengths of the amino-terminal sequence.
#accession A60567
##molecule_type protein
##residues 21-33,'X',35,'X',37-47 #label Y02
#note the forms starting from positions 21, 23, and 28 represented 8%, 47%, and 45%, respectively, of total interleukin-8

#accession A60847
##molecule_type protein
##residues 28-47 #label VA3
REFERENCE S15417
#authors Car, B.D.; Baggiolini, M.; Walz, A.
#journal Biochem. J. (1991) 275:581-584
#title Formation of neutrophil-activating peptide 2 from platelet-derived connective-tissue-activating peptide III by different tissue proteases.
#cross-references MUID:91246085
#accession S15417
##status preliminary
##molecule_type protein
##residues 28-99 #label CAR
REFERENCE S03975
#authors Golds, E.E.; Mason, P.; Nyirkos, P.
#journal Biochem. J. (1989) 259:585-588
#title Inflammatory cytokines induce synthesis and secretion of gro protein and a neutrophil chemotactic factor but not beta-2-microglobulin in human synovial cells and fibroblasts
#cross-references MUID:89246368
#accession S03975
##molecule_type protein
##residues 23-46 #label GOL
REFERENCE I54560
#authors Hotta, K.; Hayashi, K.; Ishikawa, J.; Tagawa, M.; Hashimoto, K.; Mizuno, S.; Suzuki, K.
#journal Immunol. Lett. (1990) 24:165-170
#title Coding region structure of interleukin-8 gene of human lung giant cell carcinoma LU65C cells that produce luteal/interleukin-8: homogeneity in interleukin-8 genes.
#cross-references MUID:90346419

Note: remainder of annotations omitted.
Query Match 77.3%; Score 75; DB 2; Length 99;
Best Local Similarity 66.7%; Pred. No. 8.37e-04;

Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;
Db 75 ELCDLPKKNWQ 86
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Qy 1 EICADPKOKWQ 12

RESULT 28
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TITLE Neutrophil attractant protein-1 - guinea pig
ORGANISM #formal_name Cavia porcellus #common_name guinea pig
DATE 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 23-Feb-1997
ACCESSIONS I48148
REFERENCE I48148
#authors Yoshimura, T.; Johnson, D.G.
#journal J. Immunol. (1993) 151:6225-6226
#title cDNA cloning and expression of guinea pig neutrophil attractant protein-1 (NAP-1): NAP-1 is highly conserved in guinea pig.
#cross-references MUID:94065176
#accession I48148
##status preliminary; translated from GB/EMBL/DBJ
##molecule_type DNA
##residues 1-101 #label RES
#cross-references GB:I04986; NID:9459764; PTD:9459765
GENETICS
#gene NAP-1
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 101 #molecular_weight 11414 #checksum 2363

Query Match 77.3%; Score 75; DB 2; Length 101;
Best Local Similarity 66.7%; Pred. No. 8.37e-04;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;
Db 75 QLCDPKKKWQ 86
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Qy 1 EICADPKOKWQ 12

RESULT 29
ENTRY A46539 #type complete
TITLE monocyte chemoattractant cytokine RANTES precursor - mouse
ALTERNATE_NAMES RANTES
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE 18-Jun-1993 #sequence_revision 16-Aug-1996 #text_change 11-Sep-1998
ACCESSIONS I48875; A46539; I48654; I56970
REFERENCE I48875
#authors Danoff, T.M.; Lalley, P.A.; Chang, Y.S.; Heeger, P.S.; Neilson, E.G.
#journal J. Immunol. (1994) 152:1182-1189
#title Cloning, genomic organization, and chromosomal localization of the Scya gene encoding the murine chemokine RANTES.
#cross-references MUID:94132613
#accession I48875
##status preliminary; translated from GB/EMBL/DBJ
##molecule_type DNA
##residues 1-91 #label DAN
#cross-references EMBL:U02298; NID:9460090; PID:9460091
REFERENCE A46539
#authors Schall, T.J.; Simpson, N.J.; Mak, J.Y.
#journal Eur. J. Immunol. (1992) 22:1477-1481
#title Molecular cloning and expression of the murine RANTES cytokine: structural and functional conservation between mouse and man.
#cross-references MUID:92289805
#accession A46539
##molecule_type mRNA
##residues 1-18,'A',20-91 #label SCH
#experimental_source macrophage cell line PUS-1.8
#note sequence extracted from NCBI backbone (NCBIN:106768, NCBIPI:106770)

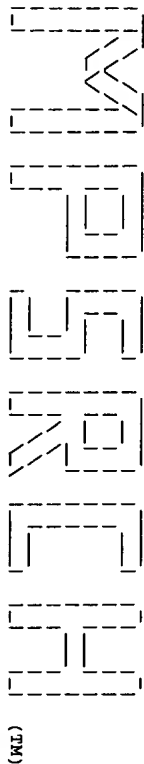
REFERENCE I48654
#authors Shin, H.S.; Drysdale, B.E.; Shin, M.L.; Noble, P.W.; Fisher,
S.N.; Paznekas, W.A.
#journal Mol. Cell. Biol. (1994) 14:2914-2925
#title Definition of a lipopolysaccharide-responsive element in the
5'-flanking regions of MURantes and crg-2.
#cross-references MURID:94217689
#accession I48654
#status translation not shown; translated from GB/EMBL/DBJ
#molecule_type DNA
#residues 1-91 #label SHI
#cross-references EMBL:X70675; NID:g475205; PID:g475206
REFERENCE I56970
#authors Neilson, E.G.; Krensky, A.
#journal Kidney Int. (1992) 41:220-225
#title Isolation and characterization of cDNA from renal tubular
epithelium encoding murine Rantes: A small interleukin from
the SCY superfamily.
#cross-references MURID:92277990
#accession I56970
#status translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-40, 'E', 42-91 #label NEI
#cross-references GB:M77747; NID:g200649; PID:g200650
COMMENT This chemoattractant for monocytes but not neutrophils is an
immediate-early response protein to LPS stimulation.
GENETICS
#introns 26/1; 63/2
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS chemotaxis; cytokine; immediate-early protein; inflammation
FEATURE
1-23 #domain signal sequence #status predicted #label SIG
24-91 #product monocyte chemoattractant cytokine RANTES
#status predicted #label MAT
#length 91 #molecular-weight 10071 #checksum 3010
SUMMARY
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Matches 7; Conservative 3; Mismatches 2; Indels 0; Gaps 0;
Db 71 QVCADPSEKVVQ 82
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QY 1 EICADPKQKVVQ 12

RESULT 30
ENTRY C60407 #type fragment
TITLE monocyte adherence-induced protein 5 beta - human (fragment)
ORGANISM #formal_name Homo sapiens #common_name man
DATE 06-Nov-1992 #sequence_revision 06-Nov-1992 #text_change
03-May-1996
ACCESSION C60407
REFERENCE A60407
#authors Sporn, S.A.; Eierman, D.F.; Johnson, C.E.; Morris, J.;
Martin, G.; Ladner, M.; Haskill, S.
#journal J. Immunol. (1990) 144:4434-4441
#title Monocyte adherence results in selective induction of novel
genes sharing homology with mediators of inflammation and
tissue repair.
#cross-references MURID:90257367
#accession C60407
#status preliminary: not compared with conceptual translation
#molecule_type mRNA
#residues 1-50 #label SPO
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 50 #checksum 9927

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Best Local Similarity 58.3%; Pred. No. 3.47e-03;
Matches 7; Conservative 3; Mismatches 2; Indels 0; Gaps 0;
Db 30 QVCADPSEKVVQ 41
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QY 1 EICADPKQKVVQ 12

Search completed: Thu Apr 1 07:24:36 1999
Job time : 24 secs.



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Run on: Thu Apr 1 07:22:02 1999; Maspar time 3.06 Seconds
105.179 Million cell updates/sec

Tabular output not generated.

Title: >US-08-927-939-1
Description: (1-12) from US08927939.pep
Perfect Score: 97
Sequence: 1 EICADPKQKVVQ 12

Scoring table:
PAM 150
Gap 15

Searched: 74019 seqs, 26840295 residues

Post-processing: Minimum Match 0%
Listing first 100 summaries

Database: swiss-prot36
1:swissprot

Statistics: Mean 25.450; Variance 32.065; scale 0.794

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB	ID	Description	Pred. No.
1	97	100.0	99	1	MCP1_HUMAN	MONOCYTE CHEMOTACTIC P	2.70e-10
2	97	100.0	101	1	MCP1_CANFA	MONOCYTE CHEMOTACTIC P	2.70e-10
3	96	99.0	99	1	MCP1_PIG	MONOCYTE CHEMOTACTIC P	4.91e-10
4	94	96.9	99	1	MCP2_BOVIN	MONOCYTE CHEMOTACTIC P	1.61e-09
5	93	95.9	98	1	MCP4_HUMAN	MONOCYTE CHEMOTACTIC P	2.92e-09
6	92	94.8	99	1	MCP4_BOVIN	MONOCYTE CHEMOTACTIC P	5.26e-09
7	91	93.8	125	1	MCP1_RABIT	MONOCYTE CHEMOTACTIC P	9.47e-09
8	90	92.8	97	1	EOTA_RAT	EOTAXIN PRECURSOR (EOS	1.70e-08
9	90	92.8	97	1	EOTA_MOUSE	EOTAXIN PRECURSOR (EOS	1.70e-08
10	90	92.8	99	1	MCP3_HUMAN	MONOCYTE CHEMOTACTIC P	1.70e-08
11	89	91.8	97	1	EOTA_HUMAN	EOTAXIN PRECURSOR (EOS	3.05e-08
12	88	90.7	99	1	MCP2_PIG	MONOCYTE CHEMOTACTIC P	5.44e-08
13	88	90.7	120	1	MCP1_CANFA	MONOCYTE CHEMOTACTIC P	5.44e-08
14	86	88.7	104	1	MCP5_MOUSE	MONOCYTE CHEMOTACTIC P	1.73e-07
15	84	86.6	96	1	EOTA_CANFA	EOTAXIN PRECURSOR (EOS	5.42e-07
16	84	86.6	101	1	IL8_CANFA	INTERLEUKIN-8 PRECURSO	5.42e-07
17	84	86.6	101	1	IL8_SHEEP	INTERLEUKIN-8 PRECURSO	5.42e-07
18	84	86.6	103	1	IL8_PIG	INTERLEUKIN-8 PRECURSO	5.42e-07
19	83	85.6	92	1	MIL1_RAT	MACROPHAGE INFLAMMATOR	9.58e-07
20	82	84.5	74	1	MCPB_BOVIN	MONOCYTE CHEMOTACTIC P	1.69e-06
21	82	84.5	99	1	MCP2_HUMAN	MONOCYTE CHEMOTACTIC P	1.69e-06
22	81	83.5	89	1	MIP4_HUMAN	MACROPHAGE INFLAMMATOR	2.96e-06
23	81	83.5	101	1	IL8_BOVIN	INTERLEUKIN-8 PRECURSO	2.96e-06

24	81	83.5	101	1	IL8_RABIT	INTERLEUKIN-8 PRECURSO	2.96e-06
25	80	82.5	148	1	MCP1_MOUSE	MONOCYTE CHEMOTACTIC P	5.18e-06
26	76	78.4	92	1	MIL1_MOUSE	MACROPHAGE INFLAMMATOR	4.73e-05
27	76	78.4	148	1	MCP1_RAT	MONOCYTE CHEMOTACTIC P	4.73e-05
28	75	77.3	93	1	SDF1_MOUSE	STROMAL CELL-DERIVED F	8.17e-05
29	75	77.3	93	1	SDF1_HUMAN	STROMAL CELL-DERIVED F	8.17e-05
30	75	77.3	97	1	MCP3_MOUSE	MONOCYTE CHEMOTACTIC P	8.17e-05
31	75	77.3	99	1	IL8_HUMAN	INTERLEUKIN-8 PRECURSO	8.17e-05
32	75	77.3	101	1	IL8_CANFA	INTERLEUKIN-8 PRECURSO	8.17e-05
33	74	76.3	91	1	SISD_MOUSE	T-CELL SPECIFIC RANTES	1.40e-04
34	74	76.3	92	1	SISD_RAT	T-CELL SPECIFIC RANTES	1.40e-04
35	72	74.2	92	1	MIL1_HUMAN	MACROPHAGE INFLAMMATOR	4.11e-04
36	72	74.2	92	1	MIL1_HUMAN	MACROPHAGE INFLAMMATOR	4.11e-04
37	72	74.2	93	1	MIL1_HUMAN	MACROPHAGE INFLAMMATOR	4.11e-04
38	71	73.2	96	1	MIL3_HUMAN	MACROPHAGE INFLAMMATOR	4.11e-04
39	71	73.2	101	1	IL8_CERTO	INTERLEUKIN-8 PRECURSO	6.99e-04
40	71	73.2	101	1	IL8_MACMU	INTERLEUKIN-8 PRECURSO	6.99e-04
41	70	72.2	93	1	CCCL_HUMAN	CHEMOKINE CC-3 PRECURS	1.19e-03
42	70	72.2	109	1	CCCL_HUMAN	CHEMOKINE CC-3 PRECURS	1.19e-03
43	69	71.1	90	1	MILB_CHICK	MACROPHAGE INFLAMMATOR	2.00e-03
44	69	71.1	92	1	MILB_RABIT	MACROPHAGE INFLAMMATOR	2.00e-03
45	69	71.1	114	1	LTN_RAT	LYMPHOTACTIN PRECURSOR	2.00e-03
46	68	70.1	50	1	SISD_PIG	T-CELL SPECIFIC RANTES	3.37e-03
47	68	70.1	91	1	SISD_CANFA	T-CELL SPECIFIC RANTES	3.37e-03
48	68	70.1	91	1	SISD_HUMAN	T-CELL SPECIFIC RANTES	3.37e-03
49	68	70.1	114	1	LTN_MOUSE	LYMPHOTACTIN PRECURSOR	3.37e-03
50	65	67.9	92	1	MILB_RAT	MACROPHAGE INFLAMMATOR	1.57e-02
51	63	64.9	103	1	EMF1_CHICK	EMBRYO FIBROBLAST PROT	4.29e-02
52	62	62.9	92	1	MILB_MOUSE	MACROPHAGE INFLAMMATOR	7.05e-02
53	61	62.9	114	1	LTN_HUMAN	LYMPHOTACTIN PRECURSOR	1.15e-01
54	60	61.9	117	1	Y39K_YEAST	HYPOTHETICAL 13.2 KD P	1.87e-01
55	60	61.9	117	1	Y39K_YEAST	HYPOTHETICAL 13.2 KD P	1.87e-01
56	60	61.9	117	1	Y39K_YEAST	HYPOTHETICAL 13.2 KD P	1.87e-01
57	59	60.8	98	1	MIL3_HUMAN	MACROPHAGE INFLAMMATOR	3.03e-01
58	59	60.8	116	1	C10_MOUSE	C10 PROTEIN PRECURSOR	3.03e-01
59	58	58.8	116	1	PNKL_NPVAC	POTATIVE POLYNUCLEOTID	7.82e-01
60	57	57.7	122	1	MILG_MOUSE	MACROPHAGE INFLAMMATOR	1.25e+00
61	56	56.7	176	1	YGDP_ECOLI	HYPOTHETICAL 20.8 KD P	1.25e+00
62	55	56.7	378	1	DHA_BACSU	ALANINE DEHYDROGENASE	1.97e+00
63	55	56.7	731	1	BGAL_MALDO	BETA-GALACTOSIDASE PRE	1.97e+00
64	53	54.6	37	1	RL36_SYNP6	50S RIBOSOMAL PROTEIN	4.86e+00
65	53	54.6	37	1	RL36_YIBCH	50S RIBOSOMAL PROTEIN	4.86e+00
66	53	54.6	92	1	SISF_MOUSE	SMALL INDUCIBLE CYTOKI	4.86e+00
67	53	54.6	94	1	TARC_HUMAN	THYMS AND ACTIVATION-	4.86e+00
68	52	53.6	140	1	VHM3_CAPVK	PROTEIN HMS	4.86e+00
69	52	53.6	281	1	CD37_MOUSE	LEUCOCYTE ANTIGEN CD37	7.57e+00
70	52	53.6	379	1	YFGB_PSEAE	HYPOTHETICAL 41.7 KD P	7.57e+00
71	52	53.6	641	1	E2BE_HUMAN	TRANSLATION INITIATION	7.57e+00
72	52	53.6	721	1	E2BE_RABIT	TRANSLATION INITIATION	7.57e+00
73	52	53.6	828	1	BGAL_BRAOT	BETA-GALACTOSIDASE PRE	7.57e+00
74	52	53.6	831	1	NAPA_RHOSH	PERILASINIC NITRATE RE	7.57e+00
75	52	53.6	1871	1	SEX_HUMAN	TRANSMEMBRANE PROTEIN	1.57e+00
76	51	52.6	37	1	RK36_PEA	CHLOROPLAST 50S RIBOSO	1.17e+01
77	51	52.6	37	1	RK36_ORYSA	CHLOROPLAST 50S RIBOSO	1.17e+01
78	51	52.6	37	1	RL36_MYCTU	50S RIBOSOMAL PROTEIN	1.17e+01
79	51	52.6	37	1	RK36_SPIOL	CHLOROPLAST 50S RIBOSO	1.17e+01
80	51	52.6	188	1	DHML_PARDE	METHYLAMINE DEHYDROGEN	1.17e+01
81	50	51.5	85	1	PC1_MOUSE	PLASMA-CELL MEMBRANE G	1.17e+01
82	50	51.5	196	1	KOC2_ECOLI	TRANSCRIPTIONAL REPRES	1.80e+01
83	50	51.5	276	1	YGDP_HAEIN	HYPOHETICAL PROTEIN H	1.80e+01
84	50	51.5	276	1	YGDP_PSEPU	2-HYDROXY-6-OXO-2,4-HE	1.80e+01
85	50	51.5	283	1	DMPD_PSESP	2-HYDROXYMUCONIC SEMIA	1.80e+01
86	50	51.5	349	1	SADP_HAEIN	PEPTIDE TRANSPORT SYST	1.80e+01
87	50	51.5	467	1	YG3B_YEAST	HYPOTHETICAL 54.5 KD P	1.80e+01
88	50	51.5	659	1	NRTC_SYNP7	NITRATE TRANSPORT ATP-	1.80e+01
89	50	51.5	716	1	E2BE_RAT	TRANSLATION INITIATION	1.80e+01
90	50	51.5	900	1	XPC_MOUSE	DNA-REPAIR PROTEIN COM	1.80e+01
91	50	51.5	926	1	KINH_NECUR	KINESIN HEAVY CHAIN	1.80e+01
92	50	51.5	2179	1	POLE_HNV14	GENOME POLYPROTEIN (CO	1.80e+01
93	49	50.5	37	1	RL36_HAEIN	50S RIBOSOMAL PROTEIN	2.74e+01
94	49	50.5	37	1	RK36_PORPU	CHLOROPLAST 50S RIBOSO	2.74e+01
95	49	50.5	251	1	RK36_MARPO	CHLOROPLAST 50S RIBOSO	2.74e+01
96	49	50.5	251	1	POOC_KLEPN	COENZYME POO SYNTHESIS	2.74e+01
97	49	50.5	376	1	YKFC_ECOLI	HYPOTHETICAL 43.2 KD P	2.74e+01

97	49	50.5	532	1	INV4_YEAST	INVERTASE 4 PRECURSOR	2.74e+01
98	49	50.5	856	1	ENV_HVISC	ENVELOPE POLYPROTEIN G	2.74e+01
99	49	50.5	861	1	ENV_HV1KB	ENVELOPE POLYPROTEIN G	2.74e+01
100	49	50.5	1675	1	CLH_RAT	CLATHRIN HEAVY CHAIN	2.74e+01

ALIGNMENTS

```

RESULT 1
AC MCPP1_HUMAN STANDARD; PRT: 99 AA.
AC P13500;
DT 01-JAN-1990 (REL. 13, CREATED)
DT 01-JAN-1990 (REL. 13, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE CHEMOTACTIC
DE AND ACTIVATING FACTOR) (MCAF) (MONOCYTE SECRETORY PROTEIN 1)
DE (MONOCYTE CHEMOTACTIC PROTEIN 1) (HC11) (SMALL INDUCIBLE CYTOKINE
DE A2).
OS SCYA2 OR MCP1.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; PRIMATES.
OC [1]
RA SEQUENCE FROM N.A.
RA MEDLINE: 89165862.
RA FUTURATI Y., NOMURA H., NOTAKE M., OYAMADA Y., FUKUI T., YAMADA M.,
RA LARSEN C.G., OPPENHEIM J.J., MATSUSHITA K.;
RA BIOCHEM. BIOPHYS. RES. COMMUN. 159:249-255(1989).
RA [2]
RA SEQUENCE FROM N.A.
RA MEDLINE: 90097880.
RA ROLLINS B.J., STIER P., ERNST T., WONG G.G.;
RA MOL. CELL. BIOL. 9:4687-4695(1989).
RA [3]
RA SEQUENCE FROM N.A.
RA MEDLINE: 89153605.
RA YOSHIMURA T., YUKHI N., MOORE S.K., APPELLA E., LERMAN M.I.,
RA LEONARD E.J.;
RA FEBS LETT. 244:487-493(1989).
RA [4]
RA SEQUENCE FROM N.A.
RA MEDLINE: 90290466.
RA SHY Y.J., LI Y.S., KOLATUKUDY P.E.;
RA BIOCHEM. BIOPHYS. RES. COMMUN. 169:346-351(1990).
RA [5]
RA SEQUENCE FROM N.A.
RA MEDLINE: 91207938.
RA CHANG H.C., HSU F., FREEMAN G.J., GRIFFIN J.D., REINHERZ E.L.;
RA INT. IMMUNOL. 1:388-399(1989).
RA [6]
RA SEQUENCE FROM N.A.
RA MEDLINE: 94150478.
RA LI Y.S., SHY Y.J., WRIGHT J.G., VALENTE A.J., CORNHILL J.F.,
RA KOLATUKUDY P.E.;
RA MOL. CELL. BIOCHEM. 126:61-68(1993).
RA [7]
RA SEQUENCE FROM N.A.
RA MEDLINE: 92095166.
RA YOSHIMURA T., LEONARD E.J.;
RA ADV. EXP. MED. BIOL. 305:47-56(1991).
RA [8]
RA SEQUENCE OF 24-99.
RA MEDLINE: 89184525.
RA ROBINSON E.A., YOSHIMURA T., LEONARD E.J., TANAKA S., GRIFFIN P.R.,
RA SHABANOWITZ J., HUNT D.F., APPELLA E.;
RA PROC. NATL. ACAD. SCI. U.S.A. 86:1850-1854(1989).
RA [9]
RA SEQUENCE OF 29-53 AND 82-92.
RA MEDLINE: 90211336.
RA DECOCK B., CONINGS R., LENAERTS J.-P., BILING A., VAN DAMME J.;
RA BIOCHEM. BIOPHYS. RES. COMMUN. 167:904-909(1990).
RA [10]
RA 3D-STRUCTURE MODELLING.

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RX MEDLINE: 91312872.
RX GRONENBORN A.M., CLORE G.M.;
RX PROTEIN ENG. 4:263-269(1991).
RX [11]
RX X-RAY CRYSTALLOGRAPHY (1.85 ANGSTROMS).
RX MEDLINE: 97143315.
RX LUBKOWSKI J., BUJACZ G., DOMAILLE P.J., HANDEL T.M., WLODANER A.;
RX NAT. STRUCT. BIOL. 4:64-69(1997).
RX [12]
RX STRUCTURE BY NMR.
RX MEDLINE: 96234959.
RX HANDEL T.M., DOMAILLE P.J.;
RX BIOCHEMISTRY 35:6569-6584(1996).
RX [13]
RX EFFECT OF DELETION OF N-TERMINAL RESIDUES.
RX MEDLINE: 96155223.
RX WEEER M., UGCCIONI M., BAGGIOLINI M., CLARK-LEWIS I., DAHINDEN C.A.;
RX J. EXP. MED. 183:681-685(1996).
RX [14]
RX MUTAGENESIS.
RX MEDLINE: 94253189.
RX ZHANG Y.J., RUTLEDGE B.J., ROLLINS B.J.;
RX J. BIOL. CHEM. 269:15918-15924(1994).
RX [15]
RX SUBUNIT.
RX MEDLINE: 97053697.
RX KIM K.-S., RAJARATHNAM K., CLARK-LEWIS I., SYKES B.D.;
RX FEBS LETT. 395:277-282(1996).
RX -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND BASOPHILS
RX BUT NOT NEUTROPHILS OR EOSINOPHILS. AUGMENTS MONOCYTE ANTI-TUMOR
RX ACTIVITY. HAS BEEN IMPLICATED IN THE PATHOGENESIS OF DISEASES.
RX CHARACTERIZED BY MONOCYTIC INFILTRATES, LIKE PSORIASIS, RHUMATOID
RX ARTHRITIS OR ATHEROSCLEROSIS. MAY BE INVOLVED IN THE RECRUITMENT
RX OF MONOCYTES INTO THE ARTERIAL WALL DURING THE DISEASE PROCESS OF
RX ATHEROSCLEROSIS.
RX -1- SUBUNIT: MONOMER OR HOMODIMER, IN EQUILIBRIUM.
RX -1- PM: PROCESSING AT THE N-TERMINUS CAN REGULATE RECEPTOR AND TARGET
RX CELL SELECTIVITY. DELETION OF THE AMINO-TERMINAL RESIDUE CONVERTS
RX IT FROM AN ACTIVATOR OF BASOPHIL TO AN EOSINOPHIL CHEMOTACTICANT.
RX -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
RX C-C) (CHEMOKINE CC).
RX EMBL: M31626; G386961; -.
RX EMBL: M30816; G386961; JOINED.
RX EMBL: M31625; G386961; JOINED.
RX EMBL: M24545; G307163; -.
RX EMBL: M28226; G338009; -.
RX EMBL: X14768; G34514; -.
RX EMBL: M37719; G4807124; -.
RX EMBL: M28225; G338007; -.
RX EMBL: M28224; G338007; JOINED.
RX EMBL: M28224; G338007; JOINED.
RX EMBL: S69738; G545465; -.
RX EMBL: S71513; G240868; -.
RX EMBL: A17786; G641145; -.
RX PIR: A35474; A35474.
RX PIR: S03339; S03339.
RX PDB: 1DOK; 12-MAR-97.
RX PDB: 1DOL; 12-MAR-97.
RX PDB: 1DOM; 14-OCT-96.
RX PDB: 1DON; 14-OCT-96.
RX PDB: 1MCA; 15-OCT-94.
RX MIN: 158105; -.
RX PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
RX CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; 3D-STRUCTURE.
RX SIGNAL 1 23
RX CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 1.
RX MOD. RES. 24 24 PYROGLUTAMINE CARBOXYLIC ACID.
RX DISULFID 34 59
RX DISULFID 35 75
RX CARBOHYD 37 76
RX VARIANT 76 37
RX MUTAGEN 24 24 A->T.
RX MUTAGEN 25 32 MISSING: LOSS OF ACTIVITY.

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FT MUTAGEN 24 85 MISSING: 90% REDUCTION IN ACTIVITY.
FT MUTAGEN 24 91 MISSING: 83% REDUCTION IN ACTIVITY.
FT MUTAGEN 26 26 D->A: 90% REDUCTION IN ACTIVITY.
FT MUTAGEN 29 29 N->A: 50% REDUCTION IN ACTIVITY.
FT MUTAGEN 47 47 R->F: 95% REDUCTION IN ACTIVITY.
FT MUTAGEN 50 50 S->O: 40% REDUCTION IN ACTIVITY.
FT MUTAGEN 51 51 Y->D: LOSS OF ACTIVITY.
FT MUTAGEN 53 53 R->L: LOSS OF ACTIVITY.
FT MUTAGEN 91 91 D->L: 90% REDUCTION IN ACTIVITY.
SO SEQUENCE 99 AA: 11025 MW: 5355B695 CRC32;

Query Match
Best Local Similarity 100.0%; Score 97; DB 1; Length 99;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 73 EICADPKOKWQ 84
1 EICADPKOKWQ 12

RESULT 2
ID MCP1_CANFA STANDARD; PRT; 101 AA.
AC P52203;
DT 01-OCT-1996 (REL. 34, CREATED)
DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE
DE CHEMOTACTIC PROTEIN 1).
GN SCYA2 OR MCP1.
OS CANIS FAMILIARIS (DOG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
RN EUTHERIA; CARNIVORA.
[1]
RP SEQUENCE FROM N.A.
RC TISSUE=JUGULAR VEIN ENDOTHELIAL;
RX MEDLINE: 97176620.
RA KUMAR A.G., BALLANTYNE C.M., MICHAEL L.H., KUKIELA G.L., YONKER K.A.,
RA LINDSEY M.L., HARKINS H.K., BIRDSALL H.H., MACKAY C.R., LAROSA G.J.,
RA ROSEN R.D., SMITH C.W., ENTMAN M.L.;
RL CIRCULATION 95:693-700(1997).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC NEUTROPHILS. IMPORTANT FACTOR IN THE COURSE OF THE INFLAMMATORY
CC REACTION TO REPERFUSION OF THE PREVIOUSLY ISCHEMIC MYOCARDIUM.
CC MAY PLAY A SIGNIFICANT ROLE IN MONOCYTE TRAFFICKING INTO THE
CC REPERFUSED MYOCARDIUM.
CC -1- SUBUNIT: MONOMER OR HOMODIMER. IN EQUILIBRIUM (BY SIMILARITY).
CC -1- INDUCTION: BY TNF-ALPHA.
CC -1- TISSUE SPECIFICITY: ENDOTHELIUM OF SMALL VEINS AND INTRAFASCICULAR
CC VEINS. AND INFILTRATING LEUKOCYTES.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: U29653; G1144186; -
DR PROSITE: PS00472; SMALL CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
FT CHAIN 1 23 BY SIMILARITY.
FT MOD_RES 24 101 MONOCYTE CHEMOTACTIC PROTEIN 1.
FT DISULFID 34 59 PYRROLIDONE CARBOXYLIC ACID (BY
FT DISULFID 35 75 SIMILARITY).
SO SEQUENCE 101 AA: 11121 MW: A7075B14 CRC32;

Query Match
Best Local Similarity 100.0%; Score 97; DB 1; Length 101;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 73 EICADPKOKWQ 84
1 EICADPKOKWQ 12

RESULT 3
ID MCP1_PIG STANDARD; PRT; 99 AA.

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AC P42831;
DT 01-NOV-1995 (REL. 32, CREATED)
DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1).
GN SCYA2.
OS SUS SCROFA (PIG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
RN EUTHERIA; ARTIODACTYLA.
[1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 94183284.
RA HOSANG K., KNOKE I., KLAUDINY J., WEMPE F., WUTTKE W., SCHEIT K.H.;
RL BIOCHEM. BIOPHYS. RES. COMMON. 199:962-968(1994).
RN [2]
RP SEQUENCE FROM N.A.
RC TISSUE=BRIN;
RA ZACH O. R.F.;
RL SUBMITTED (JUL-1994) TO EMBL/GENBANK/DBJ DATA BANKS.
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC NEUTROPHILS.
CC -1- SUBUNIT: MONOMER OR HOMODIMER. IN EQUILIBRIUM (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: Z48479; G683717; -
DR EMBL: X79416; G872313; -
DR PROSITE: PS00472; SMALL CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
FT CHAIN 1 23 BY SIMILARITY.
FT MOD_RES 24 24 MONOCYTE CHEMOTACTIC PROTEIN 1.
FT DISULFID 34 59 PYRROLIDONE CARBOXYLIC ACID (BY
FT DISULFID 35 75 SIMILARITY).
SO SEQUENCE 99 AA: 10976 MW: ECC3AFB4 CRC32;

Query Match
Best Local Similarity 99.0%; Score 96; DB 1; Length 99;
Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 73 EICADPKOKWQ 84
1 EICADPKOKWQ 12

RESULT 4
ID MCP2_BOVIN STANDARD; PRT; 99 AA.
AC O09141;
DT 01-NOV-1995 (REL. 32, CREATED)
DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
DE CHEMOTACTIC PROTEIN 2).
GN SCYA8 OR MCP2.
OS BOS TAURUS (BOVINE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
RN EUTHERIA; ARTIODACTYLA.
[1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 94114084.
RA WEMPE F., HANES J., SCHEIT K.H.;
RL DNA CELL BIOL. 13:1-8(1994).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES. THIS PROTEIN
CC CAN BIND HEPARIN.
CC -1- SUBUNIT: MONOMER OR HOMODIMER. IN EQUILIBRIUM (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: S67954; E118856; -
DR EMBL: S67956; G544997; -
DR PROSITE: PS00472; SMALL CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE.
FT CHAIN 1 23 BY SIMILARITY.
FT MOD_RES 24 99 MONOCYTE CHEMOTACTIC PROTEIN 2.

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FT MOD_RES 24 24 PYROLIDONE CARBOXYLIC ACID (BY
 FT DISULFID 34 59 SIMILARITY.
 FT DISULFID 35 75 BY SIMILARITY.
 SQ SEQUENCE 99 AA; 10900 MW; 9BA2CD26 CRC32;
 Query Match 96.9%; Score 94; DB 1; Length 99;
 Best Local Similarity 83.3%; Pred. No. 1,61e-09;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
 Db 73 DVCADPKOKWQ 84
 Qy 1 EICADPKOKWQ 12
 RESULT 5
 ID MCPA_HUMAN STANDARD; PRT; 98 AA.
 AC 099616;
 DT 15-JUL-1998 (REL. 36, CREATED)
 DT 15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 4 PRECURSOR (MCP-4) (MONOCYTE
 DE CHEMOTACTIC PROTEIN 4) (CK-BETA10) (MCP-1).
 GN SCY13 OR MCP4 OR NCCL.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE=HEART;
 RX MEDLINE: 97113354.
 RA GARCIA-ZEPEDA E.A., COMBADIENE C., ROTHENBERG M.E., SARAFI M.N.,
 RA LAVIGNE F., HAMID Q., MURPHY P.M., LUSTER A.D.;
 RA J. IMMUNOL. 157:5613-5626(1996).
 RN [2]
 RP SEQUENCE FROM N.A., AND SEQUENCE OF 17-98.
 RC TISSUE=FETAL;
 RX MEDLINE: 96235049.
 RA UGUCCIONI M., LOETSCHER P., FORSMANN U., DEMALD B., LI H., LIMA S.H.,
 RA LI Y., KREIDER B., GAROTTA G., THELEN M., BAGGIOLINI M.;
 RA J. EXP. MED. 183:2379-2384(1996).
 RN [3]
 RP SEQUENCE FROM N.A., AND SEQUENCE OF 22-33.
 RC TISSUE=FETAL;
 RX MEDLINE: 97341179.
 RA BEKHOUT T.A., SARAU H.M., MOORES K., WHITE J.R., ELSHOUBAGY N.,
 RA APELBAUM E., SARAPE T.J., BRAUNER M., MAKANA J., FOLEY J.J.,
 RA SCHMIDT D.B., IMBURGIA C., MACNULTY D., MATTHEWS J., O'DONNELL K.,
 RA O'SHANNESSEY D., SCOTT M., GROOT P.H.E., MACPHEE C.;
 RA J. BIOL. CHEM. 272:16404-16413(1997).
 RN [4]
 RP SEQUENCE FROM N.A.
 NA DATE M., GIBSON A.;
 RL SUBMITTED (AUG-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, LYMPHOCYTES,
 CC BASOPHILS AND EOSINOPHILS, BUT NOT NEUTROPHILS. SIGNALS THROUGH
 CC CCR2B AND CCR3 RECEPTORS. PLAYS A ROLE IN THE ACCUMULATION OF
 CC LEUKOCYTES AT BOTH SIDES OF ALLERGIC AND NONALLERGIC INFLAMMATION.
 CC MAY BE INVOLVED IN THE RECRUITMENT OF MONOCYTES INTO THE ARTERIAL
 CC WALL DURING THE DISEASE PROCESS OF ARTERIOSCLEROSIS. MAY PLAY A
 CC ROLE IN THE MONOCYTE ATTRACTION IN TISSUES CHRONICALLY EXPOSED TO
 CC EXOGENOUS PATHOGENS.
 CC -1- MASS SPECTROMETRY: MW-9314; MW-ERR-30; METHOD=MALDI; RANGE-17-98.
 CC -1- MASS SPECTROMETRY: MW-8760; MW-ERR-30; METHOD=MALDI; RANGE-22-98.
 CC -1- MASS SPECTROMETRY: MW-8575; MW-ERR-30; METHOD=MALDI; RANGE-24-98.
 CC -1- INDUCTION: BY INTERLEUKIN-1 AND TNF-ALPHA.
 CC -1- TISSUE SPECIFICITY: WIDELY EXPRESSED. FOUND IN SMALL INTESTINE,
 CC THYMUS, COLON, LUNG, TRACHEA, STOMACH AND LYMPH NODE. LOW LEVELS
 CC SEEN IN THE PULMONARY ARTERY SMOOTH MUSCLE CELLS.
 CC -1- THIS PROTEIN CAN BIND HEPARIN.
 CC -1- PTM: ONE MAJOR ISOFORM MCP-4, AND TWO MINOR ISOFORMS (LA)MCP-4 AND
 CC (FNPGLA)MCP-4 ARE PRODUCED BY DIFFERENTIAL SIGNAL CLEAVAGE.
 CC (LA)MCP-4 IS ABOUT 30 FOLD LESS ACTIVE THAN MCP-4.

CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 CC EMBL: U46767; G173123; -.
 DR EMBL: AC002482; G2340091; -.
 DR MIM: 601391; -.
 DR PROSITE: PS00472; SMALL CYTOKINES CC; 1.
 KM CYTOKINE; CHEMOTAXIS; SIGNAL; GLYCOPROTEIN; INFLAMMATORY RESPONSE.
 FT SIGNAL 1 23
 FT CHAIN 1 23
 FT MOD_RES 24 98 MONOCYTE CHEMOTACTIC PROTEIN 4.
 FT DISULFID 34 58 PYROLIDONE CARBOXYLIC ACID.
 FT DISULFID 35 74 BY SIMILARITY.
 FT CARBOHYD 29 29 POTENTIAL.
 SQ SEQUENCE 98 AA; 10986 MW; DF52F6EC CRC32;
 Query Match 95.9%; Score 93; DB 1; Length 98;
 Best Local Similarity 91.7%; Pred. No. 2.92e-09;
 Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
 Db 72 EICADPKOKWQ 83
 Qy 1 EICADPKOKWQ 12
 RESULT 6
 ID MCPA_BOVIN STANDARD; PRT; 99 AA.
 AC P28291;
 DT 01-DEC-1992 (REL. 24, CREATED)
 DT 01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
 DT 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1A PRECURSOR (MCP-1A) (MCP-1) (ACIDIC
 DE SEMINAL FLUID PROTEIN).
 OS BOS TAURUS (BOVINE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; ARTIODACTYLA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE=SEMINAL PLASMA;
 RX MEDLINE: 92096117.
 RA WEMPE F., HENSCHEN A., SCHEIT K.H.;
 RA DNA CELL BIOL. 10:671-679(1991).
 RN [2]
 RP SEQUENCE FROM N.A.
 RC TISSUE=SEMINAL PLASMA;
 RX MEDLINE: 92181448.
 RA WEMPE F., EINSPIRNER R., SCHEIT K.H.;
 RA BIOCHEM. BIOPHYS. RES. COMMUN. 183:232-237(1992).
 RN [3]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 9438337.
 RA WEMPE F., KOHLMANN J.K., SCHEIT K.H.;
 RA BIOCHEM. BIOPHYS. RES. COMMUN. 202:1272-1279(1994).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
 CC NEUTROPHILS.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 CC EMBL: L32659; G624394; -.
 DR EMBL: M84602; G163395; -.
 DR PIR: A39296; A39296.
 DR PIR: JC2336; JC2336.
 DR HSSP: P13500; 1MCA.
 DR PROSITE: PS00472; SMALL CYTOKINES CC; 1.
 KM CYTOKINE; CHEMOTAXIS; SIGNAL.
 FT SIGNAL 1 23
 FT CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 1A.
 FT MOD_RES 24 24 PYROLIDONE CARBOXYLIC ACID (BY
 FT DISULFID 34 59 SIMILARITY).
 FT DISULFID 35 75 BY SIMILARITY.
 SQ SEQUENCE 99 AA; 11114 MW; C8F5821D CRC32;
 Query Match 94.8%; Score 92; DB 1; Length 99;
 Best Local Similarity 91.7%; Pred. No. 5.26e-09;

Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 73 EICADPKKQWQ 84
1 EICADPKKQWQ 12

QY

RESULT 7
ID MCEP1_RABIT STANDARD; PRT; 125 AA.
AC P28292;
DT 01-DEC-1992 (REL. 24, CREATED)
DT 01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1).
GN SCY2.
OS ORCOTOLAGUS CUNICULUS (RABBIT).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
NC EUTHERIA; LAGOMORPHA.
PN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-NEW ZEALAND WHITE; TISSUE-SPLEEN;
RX MEDLINE; 91225489.
RA YOSHIMURA T., YUHKI N.;
RL J. IMMUNOL. 146:3483-3488(1991).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT NEUTROPHILS.
CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
DR EMBL: M57440; G165470; -.
DR HSP: P13500; IMCA
DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
FT SIGNAL 1 23 BY SIMILARITY.
FT CHAIN 24 125 MONOCYTE CHEMOTACTIC PROTEIN 1.
FT MOD_RES 24 24 PYROLIDONE CARBOXYLIC ACID (BY SIMILARITY).
FT DISULFID 34 59 BY SIMILARITY.
FT DISULFID 35 75 BY SIMILARITY.
FT CARBOHYD 40 40 POTENTIAL.
FT CARBOHYD 55 55 POTENTIAL.
FT CARBOHYD 112 112 POTENTIAL.
SQ SEQUENCE 125 AA; 13776 MW; FBAC9D27 CRC32;

Query Match 93.8%; Score 91; DB 1; Length 125;
Best Local Similarity 100.0%; Pred. No. 9.47e-09;
Matches 11; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 74 ICADPKKQWQ 84
2 ICADPKKQWQ 12

QY

RESULT 8
ID EOTA_RAT STANDARD; PRT; 97 AA.
AC P97545; 008780;
DT 15-JUL-1998 (REL. 36, CREATED)
DT 15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
OS RATTUS NORVEGICUS (RAT).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
NC EUTHERIA; RODENTIA.
PN [1]
RP SEQUENCE FROM N.A.
RC WILLIAMS C.M., NEWTON D.J., WILSON S.A., COLEMAN J.C.,
RA FLANAGAN B.F.;
RN SUBMITTED (DEC-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]
RP SEQUENCE FROM N.A.
RC TISSUE-LUNG;
RA ISHII Y.;
RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.

CC -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT FEATURE OF ALLERGIC INFLAMMATORY REACTIONS (BY SIMILARITY).
CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
CC -1- PTM: O-GLYCOSYLATED (PROBABLE).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
DR EMBL: Y08358; E274141; -.
DR EMBL: U96637; G2098785; -.
DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
KW INFLAMMATORY RESPONSE.
FT SIGNAL 1 23 POTENTIAL.
FT CHAIN 24 97 EOTAXIN.
FT DISULFID 32 57 BY SIMILARITY.
FT DISULFID 33 73 BY SIMILARITY.
FT CARBOHYD 94 94 POTENTIAL.
FT CONFLICT 3 3 L->S (IN REF. 2).
SQ SEQUENCE 97 AA; 10851 MW; 05B4ED45 CRC32;

Query Match 92.8%; Score 90; DB 1; Length 97;
Best Local Similarity 91.7%; Pred. No. 1.70e-08;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 71 EICADPKKQWQ 82
1 EICADPKKQWQ 12

QY

RESULT 9
ID EOTA_MOUSE STANDARD; PRT; 97 AA.
AC P48298;
DT 01-FEB-1996 (REL. 33, CREATED)
DT 01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
GN SCY2.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
NC EUTHERIA; RODENTIA.
PN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-LUNG;
RX MEDLINE; 96004658.
RA ROTHENBERG M.E., LUSTER A.D., LEDER P.;
RL PROC. NATL. ACAD. SCI. U.S.A. 92:8960-8964(1995).
RN [2]
RP SEQUENCE FROM N.A.
RC STRAIN-C57BL/6J; TISSUE-LUNG;
RX MEDLINE; 96158746.
RA GONZALO J.-A., JIA G.-O., AGUIRRE V., FRIEND D., COYLE A.J.,
RA JENKINS N.A., LIN G.-S., KATZ H., LICHTMAN A., COPELAND N.G., KOPF M.,
RA GUTIERREZ-AMOS J.-C.;
RL IMMUNITY 4:1-14(1996).
CC -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS (A PROMINENT FEATURE OF ALLERGIC INFLAMMATORY REACTIONS), BUT NOT LYMPHOCYTES, MACROPHAGES OR NEUTROPHILS.
CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
CC -1- TISSUE SPECIFICITY: EXPRESSED CONSTITUTIVELY IN THE THYMUS, EXPRESSION INDUCIBLE IN THE LUNG (TYPE I ALVEOLAR EPITHELIAL CELLS), INTESTINE, HEART, SPLEEN, KIDNEY.
CC -1- INDUCTION: BY INTERFERON-GAMMA AND LIPOLYSACCHARIDE (LPS).
CC -1- PTM: O-GLYCOSYLATED (PROBABLE).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
DR EMBL: U26426; G995911; -.
DR EMBL: U40672; G111937; -.
DR MGD; MGI:103576; SCY2.
DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
KW INFLAMMATORY RESPONSE.
FT SIGNAL 1 23 POTENTIAL.

FT CHAIN 24 97 EOTAXIN.
 FT DISULFID 32 57 BY SIMILARITY.
 FT DISULFID 33 73 BY SIMILARITY.
 SO SEQUENCE 97 AA; 10893 MW; F85A96BC CRC32;
 Query Match 92.8%; Score 90; DB 1; Length 97;
 Best Local Similarity 91.7%; Pred. No. 1.70e-08;
 Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 71 EICADPKKKWQ 82
 QY 1 EICADPKKKWQ 12

RESULT 10
 ID MCP3_HUMAN STANDARD; PRT; 99 AA.
 AC P80098;
 DT 01-DEC-1992 (REL. 24, CREATED)
 DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 3 PRECURSOR (MCP-3) (MONOCYTE
 DE CHEMOTACTIC PROTEIN 3) (NC28).
 GN SCY7 OR MCP3.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A.; AND SEQUENCE OF 31-67 AND 71-99.
 RX MEDLINE; 93213290.
 RA OPDENAKKER G., FROYEN G., FITEN P., PROOST P., VAN DAMME J.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 191:535-542(1993).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 94375065.
 RA OPDENAKKER G., FITEN P., NYS G., FROYEN G., VAN ROY N., SPELEMAN F.,
 RA LAUREYS G., VAN DAMME J.;
 RL GENOMICS 21:403-408(1994).
 RN [3]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 93305913.
 RA MINTY A., CHALON P., GUILLEMOT J.C., KAGHAD M., LIAUZUN P.,
 RA MAGAZIN M., MILLOUX B., MINTY C., RAMOND P., VITA N., LUPKER J.,
 RA SHRE D., FERRARA P., CAPUT D.;
 RL EUR. CYTOKINE NETW. 4:99-110(1993).
 RN [4]
 RP SEQUENCE OF 30-99.
 RC TISSUE-OSTEOSARCOMA;
 RX MEDLINE; 92308855.
 RA VAN DAMME J., PROOST P., LENAERTS J.-P., OPDENAKKER G.;
 RL J. EXP. MED. 176:59-65(1992).
 RN [5]
 RP STRUCTURE BY NMR, AND SUBUNIT.
 RX MEDLINE; 97053697.
 RA KIM K.-S., RAJARATHNAM K., CLARK-LEWIS I., SYKES B.D.;
 RL FEBS LETT. 395:277-282(1996).
 RN [6]
 RP STRUCTURE BY NMR.
 RX MEDLINE; 97263733.
 RA MEDINER S., BERNASAU J.-M., GUILLEMOT J.-C., FERRARA P., DABON H.;
 RL BIOCHEMISTRY 36:4412-4422(1997).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND
 CC EOSINOPHILS. BUT NOT NEUTROPHILS. AUGMENTS MONOCYTE ANTI-TUMOR
 CC ACTIVITY. ALSO INDUCES THE RELEASE OF GELATINASE B. THIS PROTEIN
 CC CAN BIND HEPARIN.
 CC -1- SUBUNIT: MONOMER.
 CC -1- PPM: O-GLYCOSYLATED.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL; X72308; G313708; ALT_INT.
 DR EMBL; X72309; -; NOT_ANNOTATED_CDS.
 DR EMBL; X71087; G288398; -;
 DR EMBL; X71087; G288398; ALT_INT.
 DR EMBL; X71087; G288397; ALT_INT.

DR PIR; JC1478; JC1478.
 DR PIR; S32222; S32222.
 DR PIR; A54678; A54678.
 DR PIR; INCV; 15-OCT-97.
 DR MIM; 158106; -;
 DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOTACTIC; HEPARIN-BINDING; GLYCOPROTEIN; SIGNAL;
 KW INFLAMMATORY RESPONSE; 3D-STRUCTURE.
 FT SIGNAL 1 23
 FT CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 3.
 FT MOD_RES 24 24 PYROLIDONE CARBOXYLIC ACID.
 FT DISULFID 34 59 BY SIMILARITY.
 FT DISULFID 35 75 BY SIMILARITY.
 FT CARBOHYD 29 29 POTENTIAL.
 FT CONFLICT 30 30 T -> R (IN REF. 4).
 FT CONFLICT 68 70 MISSING (IN REF. 4).
 SO SEQUENCE 99 AA; 11200 MW; 7502E19C CRC32;

Db 73 EICADPKKKWQ 84
 QY 1 EICADPKKKWQ 12

Query Match 92.8%; Score 90; DB 1; Length 99;
 Best Local Similarity 91.7%; Pred. No. 1.70e-08;
 Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

RESULT 11
 ID EOTA_HUMAN STANDARD; PRT; 97 AA.
 AC P51671; P50877; 092490; 092491;
 DT 01-OCT-1996 (REL. 34, CREATED)
 DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
 DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
 DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
 GN SCY11.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 96181758.
 RA GARCIA-ZEPEDA E.A., ROTHENBERG M.E., OMNBEY T.R., LEDER P.,
 RA LUSTER A.D.;
 RL NAT. MED. 2:449-456(1996).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 96189937.
 RA PONTATH P.D., QIN S., RINGLER D.J., CLARK-LEWIS I., WANG J., KASSAM N.,
 RA SMITH H., SHI X., GONZALO J.A., NEWMAN W., GUTIERREZ-RAMOS J.C.,
 RA MACKAY C.R.;
 RL J. CLIN. INVEST. 97:604-612(1996).
 RN [3]
 RP SEQUENCE FROM N.A.
 RC TISSUE-SMALL INTESTINE;
 RX MEDLINE; 96205964.
 RA KITAHARA M., NAKAJIMA T., IMAI T., HARADA S., COMADIERE C.,
 RA LIFANY H.L., MURPHY P.M., YOSHIE O.;
 RL J. BIOL. CHEM. 271:7725-7730(1996).
 RN [4]
 RP SEQUENCE FROM N.A.; SEQUENCE OF 60-65 AND 75-88, AND VARIANTS.
 RC TISSUE-FORESKIN;
 RX MEDLINE; 96374440.
 RA BARTELS J., SCHLUETER C., RICHTER E., NOSO N., KULKE R.,
 RA CHRISTOPHERS E., SCHROEDER J.M.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 225:1045-1051(1996).
 RN [5]
 RP SEQUENCE FROM N.A.
 RC TISSUE-PLACENTA;
 RX MEDLINE; 97312708.
 RA GARCIA-ZEPEDA E.A., ROTHENBERG M.E., WEREMOWICZ S., SARAFI M.N.,
 RA MORTON C.C., LUSTER A.D.;
 RL GENOMICS 41:471-476(1997).
 RN [6]


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RP SEQUENCE FROM N.A.
RC TISSUE=LUNG;
RA MEDLINE: 97445071.
RX HEIN H., SCHLEUTER C., KULKE R., CHRISTOPHERS E., SCHROEDER J.M.,
RA BARTELS J.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 237:537-542(1997).
CC -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
CC DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT
CC FEATURE OF ALLERGIC INFLAMMATORY REACTIONS.
CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
CC -1- PTM: O-GLYCOSYLATED (PROBABLE).
CC -1- INDUCTION: BY TNF-ALPHA, IL-1-ALPHA AND INTERFERON GAMMA.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: U46573; G1280141; -.
DR EMBL: U34780; G1185440; -.
DR EMBL: D49372; G1552241; -.
DR EMBL: 269291; E221070; -.
DR EMBL: 275668; E251275; -.
DR EMBL: 275669; E251258; -.
DR EMBL: U46572; G2088509; -.
DR EMBL: 292709; E329504; -.
DR MIM: 601156; -.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KM EOSINOPHIL CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
KW INFLAMMATORY RESPONSE; POLYMORPHISM.
FT SIGNAL 1 23
FT CHAIN 24 97
FT DISULFID 32 57
FT DISULFID 33 73
FT VARIANT 7 7
FT VARIANT 23 7
FT VARIANT 23 23
FT VARIANT 51 51
FT VARIANT 79 79
FT VARIANT 79 79
SQ SEQUENCE 97 AA; 10733 MW; 6C0F3D98 CRC32;

Query Match
Best Local Similarity 83.3%; Score 89; DB 1; Length 97;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 71 DICADPKKKWQ 82
UY 1 EICADPKKKWQ 12

RESULT 12
ID MCP2_PIG STANDARD: PRT: 99 AA.
AC P49873:
DT 01-OCT-1996 (REL. 34, CREATED)
DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
DE CHEMOTACTIC PROTEIN 2).
GN SCYA8 OR MCP2
OS SUS SCROFA (PIG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; ARTIODACTYLA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 95091716.
RA HOSANG K.K., KNOKE I.I., KLAUDINY J.J., WEMPE F.F., WUTTKE W.W.,
RA SCHEIT K.K.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 205:148-153(1994).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES. THIS PROTEIN
CC CAN BIND HEPARIN.
CC -1- SUBUNIT: MONOMER OR HOMODIMER. IN EQUILIBRIUM (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: 248480; G683719; -.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE.
FT SIGNAL 1 23
FT CHAIN 24 99
FT SEQUENCE FROM N.A. MONOCYTE CHEMOTACTIC PROTEIN 2.

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FT MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID (BY
FT DISULFID 34 59 SIMILARITY).
FT DISULFID 35 75 BY SIMILARITY.
SQ SEQUENCE 99 AA; 10903 MW; B7620BCF CRC32;

Query Match
Best Local Similarity 83.3%; Score 88; DB 1; Length 99;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 73 EVCADPQKKWQ 84
UY 1 EICADPKKKWQ 12

RESULT 13
ID MCP1_CAVPO STANDARD: PRT: 120 AA.
AC Q08782:
DT 01-NOV-1995 (REL. 32, CREATED)
DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE
DE CHEMOTACTIC PROTEIN-1).
GN SCYA2 OR MCP1
OS CAVIA PORCELLUS (GUINEA PIG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RX STRAIN-2; TISSUE=SPLEEN;
RX MEDLINE: 93267104.
RA YOSHIMURA T.;
RL J. IMMUNOL. 150:5025-5032(1993).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC NEUTROPHILS.
CC -1- SUBUNIT: MONOMER OR HOMODIMER. IN EQUILIBRIUM (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: L04985; G349821; -.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
FT SIGNAL 1 23
FT CHAIN 24 120
FT MOD_RES 24 24 MONOCYTE CHEMOTACTIC PROTEIN 1.
FT DISULFID 33 57 BY SIMILARITY.
FT DISULFID 34 73 BY SIMILARITY.
FT CARBOHYD 97 97 POTENTIAL.
SQ SEQUENCE 120 AA; 13741 MW; 22FAD257 CRC32;

Query Match
Best Local Similarity 83.3%; Score 88; DB 1; Length 120;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 71 EVCADPQKKWQ 82
UY 1 EICADPKKKWQ 12

RESULT 14
ID MCP5_MOUSE STANDARD: PRT: 104 AA.
AC Q62401:
DT 01-NOV-1997 (REL. 35, CREATED)
DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 5 PRECURSOR (MCP-5) (MCP-1 RELATED
DE CHEMOKINE).
GN SCYA12 OR MCP5.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.

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RX MEDLINE: 97079149.
RA JIA G.-Q., GONZALES J.A., LLOYD C., KREMER L., LU L., MARTINEZ A.C.,
RA WERSHIL B.K., GUTIERREZ-RAVOS J.C.;
RL J. EXP. MED. 184:1939-1951(1996).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 97149438.
RA SARAFI M.N., GARCIA-ZEPEDA E.A., MACLEAN J.A., CHARO I.F.,
RA LUSTER A.D.;
RL J. EXP. MED. 185:99-109(1997).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS EOSINOPHILS, MONOCYTES,
CC AND LYMPHOCYTES BUT NOT NEUTROPHILS. POTENT MONOCYTE ACTIVE
CC CHEMOKINE THAT SIGNALS THROUGH CCR2. INVOLVED IN ALLERGIC
CC INFLAMMATION AND THE HOST RESPONSE TO PATHOGENS AND MAY PLAY A
CC PIOTOTAL ROLE DURING EARLY STAGES OF ALLERGIC LUNG INFLAMMATION.
CC -1- SUBUNIT: HOMODIMER (BY SIMILARITY).
CC -1- TISSUE SPECIFICITY: PREDOMINANTLY EXPRESSED IN THE LYMPH NODES AND
CC THYMUS. ALSO FOUND IN THE SALIVARY GLANDS CONTAINING LYMPH NODES,
CC BREAST, HEART, LUNG, BRAIN, SMALL INTESTINE, KIDNEY AND COLON.
CC -1- INDUCTION: BY IFN-GAMMA AND LIPOPOLYSACCHARIDE (LPS).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: U50712; G1477582; -.
DR EMBL: U66670; G1881583; -.
DR MGD: MGI:108224; SCYAL2.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KM CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
FT SIGNAL 1 22
FT CHAIN 23 104
FT DISULFID 33 58
FT DISULFID 34 74
FT BY SIMILARITY.
SQ SEQUENCE 104 AA; 11659 MW; 08FA6C35 CRC32;

Query Match 86.7%; Score 86; DB 1; Length 104;
Best Local Similarity 90.9%; Pred. No. 1.73e-07;
Matches 10; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 72 EICADPKRKWV 82
OY 1 EICADPKRKWV 11

RESULT 15
ID EOTA_CAVPO STANDARD; PRT; 96 AA.
AC P80325;
DT 01-JUN-1994 (REL. 29, CREATED)
DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
GN SCYAL1.
OS CAVIA PORCELLUS (GUINEA PIG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RX TISSUE-LUNG;
RX MEDLINE: 95173589.
RA ROHREBERG M.E., LUSTER A.D., LILLY C.M., DRAZEN J.M., LEDER P.;
RL J. EXP. MED. 181:1211-1216(1995).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 95091818.
RA JOSE P.J., ADDOCK I.M., GRIFFITHS-JOHNSON D.A., BERKMAN N.,
RA WELLS T.C., WILLIAMS T.J., POWER C.A.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 205:788-794(1994).
RN [3]
RP SEQUENCE OF 24-96.
RC STRAIN-HARTLEY; TISSUE-LUNG;
RX MEDLINE: 94157409.
RA JOSE P.J., GRIFFITHS-JOHNSON D.A., COLLINS P.D., WALSH D.T.,
RA MOOBERL R., TOTTY N.F., TRDONG O., HSUAN J.J., WILLIAMS T.J.;
RL J. EXP. MED. 179:881-887(1994).
CC -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLEGENS, THIS PROTEIN

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CC DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT
CC FEATURE OF ALLERGIC INFLAMMATORY REACTIONS.
CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
CC -1- TISSUE SPECIFICITY: LUNG.
CC -1- PM: O-GLYCOSYLATED (PROBABLE).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: U18941; G687656; -.
DR EMBL: X77603; G602552; -.
DR HSSP: P13500; IMCA.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KM EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
INFLAMMATORY RESPONSE.
FT SIGNAL 1 23
FT CHAIN 24 96
FT DISULFID 31 56
FT DISULFID 32 72
FT CARBOHYD 93 93
FT CONFLICT 88 88
FT D -> G (IN REF. 2).
SQ SEQUENCE 96 AA; 10753 MW; DD28C7E5 CRC32;

Query Match 86.6%; Score 84; DB 1; Length 96;
Best Local Similarity 90.9%; Pred. No. 5.42e-07;
Matches 10; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 71 ICADPKRKWV 81
OY 2 ICADPKRKWV 12

RESULT 16
ID IIL8_CANFA STANDARD; PRT; 101 AA.
AC P41324;
DT 01-FEB-1995 (REL. 31, CREATED)
DT 01-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE)
DT 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
DE INTERLEUKIN-8 PRECURSOR (IL-8).
GN IIL8.
OS CANIS FAMILIARIS (DOG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; CARNIVORA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 94010328.
RA ISHIKAWA J., SUZUKI S., HOTTA K., HIROTA Y., MIZONO S., SUZUKI K.;
RL GENE 131:305-306(1993).
RN [2]
RP SEQUENCE FROM N.A.
RX TISSUE-LYMPH NODE;
RX MEDLINE: 95127913.
RA MATSUMOTO Y., MOHAMED A., ONODERA T., KATO H., OHASHI T.,
RA GOTSUDA R., TSUJIMOTO H., HASEGAWA A., FURUSAWA S., YOSHIMURA K.,
RA ISHIKAWA J., HOTTA K., SUZUKI K., HIROTA Y.;
RL CYTOKINE 6:455-461(1994).
RN [3]
RP SEQUENCE FROM N.A.
RC STRAIN-WONGREL; TISSUE-JUGULAR VEIN;
RX MEDLINE: 95114148.
RA KURIELKA G.L., SMITH W.C., LAROSA G.J., MANNING A.M.,
RA MENDOZA L.H., DALY T.J., HUGHES B.J., YOURER K.A., HAWKINS H.K.,
RA MICHAEL L.H., ROT A., ENTMAN M.L.;
RL J. CLIN. INVEST. 95:89-103(1994).
CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
CC BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
CC RESPONSE TO AN INFLAMMATORY STIMULUS.
CC -1- SUBUNIT: HOMODIMER.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
CC C-X-C) (CHEMOKINE CXC).
DR EMBL: D28772; G517100; -.
DR EMBL: D14285; G475152; -.
DR EMBL: U10308; G607814; -.
DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; 1.

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KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
 FT SIGNAL 1 22 BY SIMILARITY.
 FT CHAIN 23 101 INTERLEUKIN-8.
 FT DISULFID 34 61 BY SIMILARITY.
 FT DISULFID 36 77 BY SIMILARITY.
 SQ SEQUENCE 101 AA; 11280 MW; 7C49D62D CRC32;
 Query Match 86.6%; Score 84; DB 1; Length 101;
 Best Local Similarity 75.0%; Pred. No. 5,426-07;
 Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
 Db 75 EVCLDPKKEKWQ 86
 1 EICADPRKOKWQ 12
 RESULT 17
 ID IL8 SHEEP STANDARD; PRT: 101 AA.
 AC P36925;
 DT 01-JUN-1994 (REL. 29, CREATED)
 DT 01-JUN-1994 (REL. 29, LAST SEQUENCE UPDATE)
 DT 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
 DE INTERLEUKIN-8 PRECURSOR (IL-8).
 GN IL8.
 OS OVIS ARIES (SHEEP).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUTHERIA; ARTIODACTYLA.
 RN [1]
 RX SEQUENCE FROM N.A.
 RX MEDLINE: 95121931.
 RA LEGASTROIS I., GREENLAND T., ARNAUD P., MORNEJ J.F., CORDIER G.;
 RL GENE 150:367-369(1994).
 RN [2]
 RX SEQUENCE FROM N.A.
 RX MEDLINE: 95137691.
 RA SNOO H.F., YOSHIMURA T., WOOD P.R., COLDITZ I.G.;
 RL IMMUNOL. CELL BIOL. 72:398-405(1994).
 CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
 BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
 NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
 CC RESPONSE TO AN INFLAMMATORY STIMULUS.
 CC -1- SUBUNIT: HOMODIMER.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
 C-X-C) (CHEMOKINE CXC).
 DR EMBL: X78306; G463254; -.
 DR EMBL: S74436; G786591; -.
 DR PIR: S42496; S42496.
 DR HSSP: P10145; 31L8.
 DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; 1.
 KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
 FT SIGNAL 1 22 BY SIMILARITY.
 FT CHAIN 23 101 INTERLEUKIN-8.
 FT DISULFID 34 61 BY SIMILARITY.
 FT DISULFID 36 77 BY SIMILARITY.
 SQ SEQUENCE 101 AA; 11292 MW; 5A574527 CRC32;
 Query Match 86.6%; Score 84; DB 1; Length 101;
 Best Local Similarity 75.0%; Pred. No. 5,426-07;
 Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
 Db 75 EVCLDPKKEKWQ 86
 1 EICADPRKOKWQ 12
 RESULT 18
 ID IL8 PIG STANDARD; PRT: 103 AA.
 AC P26894; P22951;
 DT 01-AUG-1991 (REL. 19, CREATED)
 DT 01-AUG-1992 (REL. 23, LAST SEQUENCE UPDATE)
 DT 01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
 DE INTERLEUKIN-8 PRECURSOR (IL-8) (ALVEOLAR MACROPHAGE CHEMOTACTIC FACTOR
 I) (AMCF-1).

GN IL8.
 OS SCS SCROFA (PIG).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUTHERIA; ARTIODACTYLA.
 RN [1]
 RX SEQUENCE FROM N.A.
 RX MEDLINE: 94103307.
 RA LIN G., PEARSON A.E., SCAMURRA R.W., ZHOU Y., BAARSCH M.J.,
 RA WEISS D.J., MURTAUGH M.P.;
 RL J. BIOL. CHEM. 269:77-85(1994).
 RN [2]
 RX SEQUENCE FROM N.A.
 RX SANJANWALA M.;
 RL SUBMITTED (JUL-1991) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [3]
 RP SEQUENCE FROM N.A., AND SEQUENCE OF 26-45.
 RC TISSUE-LUNG;
 RX MEDLINE: 93041741.
 RA GOODMAN R.B., FOSTER D.C., MATHEWS S.L., OSBORN S.G., KUIJPER J.L.,
 RA FOSTER J.W., MARTIN T.R.;
 RL BIOCHEMISTRY 31:10483-10490(1992).
 RN [4]
 RP REVISION TO 23.
 RA GOODMAN R.B.;
 RL SUBMITTED (MAR-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [5]
 RP SEQUENCE OF 26-45.
 RC STRAIN-YORKSHIRE;
 RX MEDLINE: 91217086.
 RA GOODMAN R.B., FOSTER J.W., OSBORN S.G., CHI E.Y., MARTIN T.R.;
 RL J. BIOL. CHEM. 266:845-8463(1991).
 CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
 BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
 CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
 CC RESPONSE TO AN INFLAMMATORY STIMULUS.
 CC -1- SUBUNIT: HOMODIMER.
 CC -1- TISSUE SPECIFICITY: ALVEOLAR MACROPHAGES.
 CC -1- INDUCTION: BY LIPOPOLYSACCHARIDE.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
 C-X-C) (CHEMOKINE CXC).
 DR EMBL: M86923; G164521; -.
 DR EMBL: X61151; G516197; -.
 DR EMBL: M99367; G1235612; -.
 DR PIR: A44253; A44253.
 DR PIR: A39819; A39819.
 DR HSSP: P10145; 31L8.
 DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; 1.
 KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
 FT SIGNAL 1 25
 FT CHAIN 26 103 INTERLEUKIN-8.
 FT DISULFID 34 61 BY SIMILARITY.
 FT DISULFID 36 77 BY SIMILARITY.
 FT CONFLICT 33 34 RC -> CR (IN REF. 5).
 FT CONFLICT 87 87 K -> KR (IN REF. 2).
 SQ SEQUENCE 103 AA; 11633 MW; A012D59D CRC32;
 Query Match 86.6%; Score 84; DB 1; Length 103;
 Best Local Similarity 75.0%; Pred. No. 5,426-07;
 Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
 Db 75 EVCLDPKKEKWQ 86
 1 EICADPRKOKWQ 12
 RESULT 19
 ID M1A RAT STANDARD; PRT: 92 AA.
 AC P50229;
 DT 01-OCT-1996 (REL. 34, CREATED)
 DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
 DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
 DE MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA PRECURSOR (MIP-1-ALPHA).
 GN SCTA3 OR M1PA.

OS RATTUS NORVEGICUS (RAT).
 CC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; RODENTIA.
 RN (1)
 RP SEQUENCE FROM N.A.
 RC STRAIN-CD-1; TISSUE=LUNG;
 RX MEDLINE: 95298037.
 RA SHI M.M., GODESKI J.J., PAULAKIS J.D.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 211:289-295(1995).
 RN (2)
 RP SEQUENCE FROM N.A.
 RC STRAIN=LONG EVANS; TISSUE=LUNG;
 RX MEDLINE: 95238980.
 RA SHANLEY T.P., SCHMAL H., FRIEDL H.P., JONES M.L., WARD P.A.;
 RL J. IMMUNOL. 154:4793-4802(1995).
 RN (3)
 RP SEQUENCE OF 24-57.
 RC STRAIN=WISTAR;
 RX MEDLINE: 96183056.
 RA NAKAGAMA H., SHIOTA S., TAKANO K., SHIBATA F., KATO H.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 220:945-948(1996).
 CC -1- FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES.
 CC HAS CHEMOTACTIC ACTIVITY FOR MONOCYTES, NEUTROPHILS, EOSINOPHILS,
 CC BASOPHILS, AND LYMPHOCYTES. REQUIRED FOR LUNG TNF-ALPHA
 CC PRODUCTION, NEUTROPHIL RECRUITMENT AND SUBSEQUENT LUNG INJURY AND
 CC MAY FUNCTION AS AN AUTOCRINE MEDIATOR FOR THE MACROPHAGE
 CC PRODUCTION OF TNF-ALPHA WHICH IN TURN UP-REGULATES VASCULAR
 CC ADHESION MOLECULES REQUIRED FOR NEUTROPHIL INFLOX. THIS PROTEIN
 CC BINDS HEPARIN.
 CC -1- INDUCTION: BY LIPOLYSACCHARIDE (LPS).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL: U22414; G790633; -.
 DR EMBL: U06435; G439150; -.
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL; HEPARIN-BINDING.
 RN (1)
 RP SIGNAL 1 23
 RT CHAIN 24 92 MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA.
 FT DISULFID 34 57 BY SIMILARITY.
 FT DISULFID 35 73 BY SIMILARITY.
 FT CONFLICT 6 6 A -> T (IN REF. 2).
 FT CONFLICT 57 57 C -> W (IN REF. 2 AND 3).
 SQ SEQUENCE 92 AA; 10335 MW; F48CF89F CRC32;
 SO
 Query Match 85.58; Score 83; DB 1; Length 92;
 Best Local Similarity 75.08; Pred. No. 9.38e-07;
 Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
 Db 71 QICADPKETWVQ 82
 QY 1 EICADPKQKRWQ 12

CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOTAXIS; HEPARIN-BINDING.
 RN (1)
 RP NON_TER 1 34
 FT DISULFID 9 34 BY SIMILARITY.
 FT DISULFID 10 50 BY SIMILARITY.
 SQ SEQUENCE 74 AA; 8360 MW; 66172F08 CRC32;
 Db 48 EICAEPRKXXWVQ 59
 QY 1 EICADPKQKRWQ 12
 Query Match 84.58; Score 82; DB 1; Length 74;
 Best Local Similarity 75.08; Pred. No. 1.69e-06;
 Matches 9; Conservative 1; Mismatches 2; Indels 0; Gaps 0;
 RESULT 21
 ID MCP2_HUMAN STANDARD; PRT; 99 AA.
 AC P80075; P78388.
 DT 01-DEC-1992 (REL. 24, CREATED)
 DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
 DE CHEMOTRACTANT PROTEIN 2) (HC14).
 GN SCY6 OR SCYAL0 OR MCP2.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; PRIMATES.
 RN (1)
 RP SEQUENCE FROM N.A., AND VARIANT GLN-69.
 RX MEDLINE: 97237052.
 RA VAN COLLIE E., FITTEN P., NOMIYAMA H., SAKARI Y., MIURA R., YOSHIE O.,
 RA VAN DAMME J., OPDENAKKER G.;
 RL GENOMICS 40:323-331(1997).
 RN (2)
 RP SEQUENCE FROM N.A., AND VARIANT GLN-69.
 RX MEDLINE: 97224420.
 RA VAN COLLIE E., FROYEN F., NOMIYAMA H., MIURA R., FITTEN P.,
 RA VAN AELST I., VAN DAMME J., OPDENAKKER G.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 231:726-730(1997).
 RN (3)
 RP SEQUENCE OF 23-99 FROM N.A.
 RX MEDLINE: 91207938.
 RA CHANG H.C., HSU F., FREEMAN G.J., GRIFFIN J.D., REINHERR E.L.;
 RL INT. IMMUNOL. 1:388-399(1989).
 RN (4)
 RP SEQUENCE OF 26-99.
 RX MEDLINE: 92308855.
 RA VAN DAMME J., PROOST P., LENAERTS J.-P., OPDENAKKER G.;
 RL J. EXP. MED. 176:59-65(1992).
 RN (5)
 RP SUBUNIT.
 RX MEDLINE: 97053697.
 RA KIM K.-S., RADARATHNAM K., CLARK-LEWIS I., SYKES B.D.;
 RL FEBS LETT. 395:277-282(1996).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, LYMPHOCYTES,
 CC BASOPHILS AND EOSINOPHILS. MAY PLAY A ROLE IN NEOPLASIA AND
 CC INFLAMMATORY HOST RESPONSES. THIS PROTEIN CAN BIND HEPARIN.
 CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM.
 CC -1- TISSUE SPECIFICITY: HIGHEST EXPRESSION FOUND IN THE SMALL
 CC INTESTINE AND PERIPHERAL BLOOD CELLS. INTERMEDIATE LEVELS SEEN IN
 CC THE HEART, PLACENTA, LUNG, SKELETAL MUSCLE, THYMUS, COLON, OVARY,
 CC SPINAL CORD AND PANCREAS. LOW LEVELS SEEN IN THE BRAIN, LIVER,
 CC SPLEEN AND PROSTATE.
 CC -1- INDUCTION: BY INTERFERON GAMMA, MITOGENS AND INTERLEUKIN-1.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL: X99886; E27930; ALT_INIT.
 DR EMBL: Y10802; E294088; -.

DR HSPD: P13500; IMCA.
 DR MIM: 602283; -
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOTAXIS; SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE;
 KW POLYMORPHISM.
 FT SIGNAL 1 23 PROBABLE.
 FT CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 2.
 FT MOD.RES 24 24 PYRROLIDONE CARBOXYLIC ACID.
 FT DISULFID 34 59 BY SIMILARITY.
 FT DISULFID 35 75 BY SIMILARITY.
 FT VARIANT 69 69 K->Q.
 SQ SEQUENCE 99 AA; 11246 MW; 5DD05C20 CRC32;
 Query Match 84.5%; Score 82; DB 1; Length 99;
 Best Local Similarity 66.7%; Pred. No. 1.69e-06;
 Matches 8; Conservative 4; Mismatches 0; Indels 0; Gaps 0;
 Db 73 EYCADPKRWR 84
 1 EICADPKRWRQ 12
 QY 1 EICADPKRWRQ 12
 RESULT 22
 ID MIP4_HUMAN STANDARD; PRT; 89 AA.
 AC P55774;
 DT 01-NOV-1997 (REL. 35, CREATED)
 DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MACROPHAGE INFLAMMATORY PROTEIN 4 PRECURSOR (MIP-4) (PULMONARY AND
 DE ACTIVATION-REGULATED CHEMOKINE) (CC CHEMOKINE PARC) (ALTERNATIVE
 DE ACTIVATED MACROPHAGE ASSOCIATED CC CHEMOKINE 1) (MAMC-1).
 GN SCRA18 OR MIP4.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA LI H., RUBEN S.;
 RL PATENT NUMBER US5504003.
 RN [2]
 RP SEQUENCE FROM N.A., AND PARTIAL SEQUENCE.
 RC TISSUE-AORTA, AND LUNG;
 RX MEDLINE: 97376836
 RA HIESHIMA K., IMAI T., BABA M., SHOUDAI K., ISHIZUKA K.,
 RA NAKAGAWA T., TSUBOTA J., TAKEYA M., SAKARI Y., TAKATSUKI K.,
 RA MIURA R., OPDENAKKER G., VAN DAMME J., YOSHIE O., NOMIYAMA H.;
 RL J. IMMUNOL. 159:1140-1149(1997).
 RN [3]
 RP SEQUENCE FROM N.A.
 RA KODELJA V., MUELLER C., POLITZ O., HAKIY N., ORFANOS C.E., GOERDT S.;
 RL SUBMITTED (AUG-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [4]
 RP DISCUSSION OF SEQUENCE.
 RX MEDLINE: 97275308.
 RA WELLS T.N.C., PEITSCH M.C.;
 RL J. LEUKOC. BIOL. 61:545-550(1997).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS LYMPHOCYTES BUT NOT
 CC MONOCYTES OR GRANULOCYTES. MAY BE INVOLVED IN B CELL MIGRATION
 CC INTO B CELL FOLLICLES IN LYMPH NODES.
 CC -1- TISSUE SPECIFICITY: EXPRESSED AT HIGH LEVELS IN THE LUNG. A LOWER
 CC LEVEL EXPRESSION IS SEEN IN LYMPHOID TISSUES SUCH AS LYMPH NODES,
 CC THYMUS AND APPENDIX.
 CC -1- INDUCTION: BY LIPOPOLYSACCHARIDE (LPS).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL: AB0000221: D1022520: -
 DR EMBL: Y13710: E331838: -
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
 FT SIGNAL 1 20
 FT CHAIN 21 89 MACROPHAGE INFLAMMATORY PROTEIN 4.
 FT DISULFID 30 54 BY SIMILARITY.
 FT DISULFID 31 70 BY SIMILARITY.

SQ SEQUENCE 89 AA; 9849 MW; 052AA3DC CRC32;
 Query Match 83.5%; Score 81; DB 1; Length 89;
 Best Local Similarity 75.0%; Pred. No. 2.96e-06;
 Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
 Db 68 QICADPKRWRQ 79
 1 EICADPKRWRQ 12
 QY 1 EICADPKRWRQ 12
 RESULT 23
 ID IL8_BOVIN STANDARD; PRT; 101 AA.
 AC P79253;
 DT 01-NOV-1997 (REL. 35, CREATED)
 DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
 DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
 DE INTERLEUKIN-8 PRECURSOR (IL-8).
 GN IL8.
 OS BOS TAURUS (BOVINE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; ARTIODACTYLA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA MEDLINE: 96304552.
 RA MORSEY M.A., POPOWYCH Y., KOMALSKI J., GERLACH G., GODSON D.,
 RA CAMPOS M., BABIUK L.A.;
 RL MICROB. PATHOG. 20:203-212(1996).
 CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
 CC BASOPHILS, AND T-CELLS. BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
 CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
 CC RESPONSE TO AN INFLAMMATORY STIMULUS (BY SIMILARITY).
 CC -1- SUBUNIT: HOMODIMER (BY SIMILARITY).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
 CC C-X-C) (CHEMOKINE CXCL).
 DR EMBL: S82598: G1699354: -
 DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; 1.
 KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
 FT SIGNAL 1 22
 FT CHAIN 23 101
 FT DISULFID 34 61 BY SIMILARITY.
 FT DISULFID 36 77 BY SIMILARITY.
 SQ SEQUENCE 101 AA; 11291 MW; 0E39C526 CRC32;
 Query Match 83.5%; Score 81; DB 1; Length 101;
 Best Local Similarity 66.7%; Pred. No. 2.96e-06;
 Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;
 Db 75 EYCLNPKRWRQ 86
 1 EICADPKRWRQ 12
 QY 1 EICADPKRWRQ 12
 RESULT 24
 ID IL8_RABBIT STANDARD; PRT; 101 AA.
 AC P19874;
 DT 01-FEB-1991 (REL. 17, CREATED)
 DT 01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
 DT 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
 DE INTERLEUKIN-8 PRECURSOR (IL-8) (NEUTROPHIL ATTRACTANT/ACTIVATION
 DE PROTEIN-1) (NAP-1) (PERMEABILITY FACTOR 1) (RPE1).
 GN IL8.
 OS ORYCTOLAGUS CUNICULUS (RABBIT).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; LAGOMORPHA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-NEW ZEALAND WHITE; TISSUE-SPLEEN;
 RX MEDLINE: 91225489.
 RA YOSHIMURA T., YUKI N.;
 RL J. IMMUNOL. 146:3483-3488(1991).
 RN [2]
 RP SEQUENCE OF 23-53.

RC STRAIN-NEW ZEALAND WHITE; TISSUE-PERITONEAL CAVITY;
 RX MEDLINE; 91058518;
 RA BEUBEN B.C., COLLINS P.D., JOSE P.J., TOTTI N.F., HSUAN J.,
 RL BIOCHEM. J. 271:797-801(1990).
 CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
 CC BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
 CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
 CC RESPONSE TO AN INFLAMMATORY STIMULUS.
 CC -1- SUBUNIT: HOMODIMER.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
 CC C-X-C) (CHEMOKINE CXCL).
 DR EMBL; M57439; G165553; -;
 DR PIR; S13052; S13052;
 DR HSP; P10145; 3118.
 DR PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1;
 KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
 FT SIGNAL 1 22
 FT CHAIN 23 101 INTERLEUKIN-8.
 FT DISULFID 34 61 BY SIMILARITY.
 FT DISULFID 36 77 BY SIMILARITY.
 FT CONFLICT 50 50 K -> I (IN REF. 2).
 SQ SEQUENCE 101 AA; 11402 MW; CB32CC30 CRC32;
 Query Match 83.5%; Score 81; DB 1; Length 101;
 Best Local Similarity 75.0%; Pred. No. 2.96e-06;
 Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
 Db 75 ELCDPKEKRWQ 86
 1 EICADPKKRWQ 12
 QY 1 EICADPKKRWQ 12
 RESULT 25
 ID MCPI_MOUSE STANDARD; PRT; 148 AA.
 AC P10148;
 DT 01-MAR-1989 (REL. 10, CREATED)
 DT 01-MAR-1989 (REL. 10, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (PLATELET-DERIVED
 DE GROWTH FACTOR-INDUCIBLE PROTEIN JE).
 GN SCY2 OR MCP1 OR JE.
 OS MUS MUSCULUS (MOUSE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 89093129.
 RA KAWAHARA R.S., DEUEL T.F.;
 RL J. BIOL. CHEM. 264:679-682(1989).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 88234501.
 RA ROLLINS B.J., MORRISON E.D., STILES C.D.;
 RL PROC. NATL. ACAD. SCI. U.S.A. 85:3738-3742(1988).
 RN [3]
 RP SEQUENCE OF 26-42.
 RX MEDLINE; 91293127.
 RA VAN DAMME J., DEOCK B., BERTINI R., CONINGS R., LEMERTS J.-P.,
 RA PUT W., ODEKARER G., MANTOVANI A.;
 RL EUR. J. BIOCHEM. 199:223-229(1991).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
 CC NEUTROPHILS.
 CC -1- SUBUNIT: MONOMER OR HOMODIMER. IN EQUILIBRIUM (BY SIMILARITY).
 CC -1- INDUCTION: BY PLATELET-DERIVED GROWTH FACTOR.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL; J04467; G387169; -;
 DR EMBL; M19681; G387168; -;
 DR PIR; A30209; A30209;
 DR PIR; A30861; A30861;
 DR PIR; S16226; S16226;
 DR HSP; P13500; 1MCA.

DR MED; MGI:98259; SCY2.
 DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
 FT SIGNAL 1 23
 FT CHAIN 24 148 BY SIMILARITY.
 FT MOD_RES 24 24 MONOCYTE CHEMOTACTIC PROTEIN 1.
 FT DISULFID 34 59 PYROLIDONE CARBOXYLIC ACID (BY
 FT DISULFID 35 75 SIMILARITY).
 FT DISULFID 35 75 BY SIMILARITY.
 FT CARBOHYD 126 126 BY SIMILARITY.
 SQ SEQUENCE 148 AA; 16326 MW; B7572BDC CRC32;
 Query Match 82.5%; Score 80; DB 1; Length 148;
 Best Local Similarity 75.0%; Pred. No. 5.18e-06;
 Matches 9; Conservative 1; Mismatches 2; Indels 0; Gaps 0;
 Db 73 EVCADPKKRWQ 84
 1 EICADPKKRWQ 12
 QY 1 EICADPKKRWQ 12
 RESULT 26
 ID M1A_MOUSE STANDARD; PRT; 92 AA.
 AC P10855; P14096;
 DT 01-JUL-1989 (REL. 11, CREATED)
 DT 01-APR-1990 (REL. 14, LAST SEQUENCE UPDATE)
 DT 01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
 DE MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA PRECURSOR (MIP-1-ALPHA) (TY-5)
 DE (SIS-ALPHA) (HEPARIN-BINDING CHEMOTAXIS PROTEIN) (L2625H).
 GN SCY3 OR MIP1A.
 OS MUS MUSCULUS (MOUSE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 88258380.
 RA DAVATELIS G., TEKAMP-OLSON P., WOLPE S.D., HERMSEN K., LUEDKE C.,
 RA GALLEOS C., COIT D., MERRYWEATHER J., CERAMI A.;
 RL J. EXP. MED. 167:1939-1944(1988).
 RN [2]
 RP REVISIONS.
 RA DAVATELIS G., TEKAMP-OLSON P., WOLPE S.D., HERMSEN K., LUEDKE C.,
 RA GALLEOS C., COIT D., MERRYWEATHER J., CERAMI A.;
 RL J. EXP. MED. 170:2189-2189(1989).
 RN [3]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 89093958.
 RA BROWN K.D., ZURAWSKI S.M., MOSMANN T.R., ZURAWSKI G.;
 RL J. IMMUNOL. 142:679-687(1989).
 RN [4]
 RP SEQUENCE FROM N.A.
 RX STRAIN-DBA/2J;
 RX MEDLINE; 91016858.
 RA GROVE M., LOWE S., GRAHAM G., PRAGNELL I., PLUMB M.;
 RL NUCLEIC ACIDS RES. 18:5561-5561(1990).
 RN [5]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 89184547.
 RA KWON B.S., WEISSMAN S.M.;
 RL PROC. NATL. ACAD. SCI. U.S.A. 86:1963-1967(1989).
 RN [6]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 91237116.
 RA WIDMER U., YANG Z., VAN DEVENTER S., MANOGUE K.R., SHERRY B.,
 RA CERAMI A.;
 RL J. IMMUNOL. 146:4031-4040(1991).
 RN [7]
 RP SEQUENCE OF 24-42.
 RX MEDLINE; 88154745.
 RA WOLPE S.D., DAVATELIS G., SHERRY B., BEUTLER B., HESSE D.G.,
 RA NGUYEN H.T., MOLDAMER L.L., NATHAN C.F., LOWRY S.F., CERAMI A.;
 RL J. EXP. MED. 167:570-581(1988).
 CC -1- FUNCTION: MONOKINE WITH INFLAMMATORY, PYROGENIC AND CHEMOKINETIC

CC	PROPERTIES. HAS A POTENT CHEMOTACTIC ACTIVITY FOR EOSINOPHILS. BINDING TO A HIGH-AFFINITY RECEPTOR ACTIVATES CALCIUM RELEASE IN NEUTROPHILS.
CC	-1- TISSUE SPECIFICITY: EXPRESSED IN LUNG, SPLEEN, AND PANCREAS.
CC	-1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
CC	EMBL: M23447; G533241; -.
DR	EMBL: X12531; G53123; -.
DR	EMBL: X53372; G297531; -.
DR	EMBL: J04491; G201525; -.
DR	EMBL: M73061; G196955; -.
DR	PIR: A27595; A27595.
DR	PIR: A30552; A30552.
DR	PIR: A32393; A32393.
DR	PIR: S04533; S04533.
DR	PIR: S11685; S11685.
DR	HSSP: P13236; 1HDM.
DR	MGI: 98260; SCY3.
DR	PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
DR	CYTOKINE: CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
FW	CYTOKINE: CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
FT	SIGNAL 1 23
FT	CHAIN 24 92
FT	DISULFID 34 57
FT	DISULFID 35 73
FT	CONFLICT 22 22
FT	CONFLICT 62 62
FT	SEQUENCE 92 AA; 10345 MW; 5397955E CRC32; 3).
QO	MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA. BY SIMILARITY. F -> L (IN REF. 3). V -> A (IN REF. 3).

Query Match	78.4%;	Score 76;	DB 1;	Length 92;
Best Local Similarity	66.7%;	Pred. No. 4.73e-05;		
Matches	8;	Conservative	3;	Mismatches 1;
				Indels 0;
				Gaps 0

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Db      71 QICADSKETWVQ 82
      :| | | | :| | |
Qy      1 EICADPKQKWVQ 12
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RESULT      27
ID          148 AA.
MCPI1_RAT  STANDARD;
AC          P14844;
DT          01-APR-1990 (REL. 14, CREATED)
DT          01-APR-1990 (REL. 14, LAST SEQUENCE UPDATE)
DT          15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE          MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (IMMEDIATE-EARLY
DE          SERUM-RESPONSIVE JE PROTEIN).
DE          SCY2 OR JE OR MCPI1.
GN          RATUUS NORVEGICUS (RAT).
OS          EURARCTOTA: METAEOA: CHORDATA: VERTEBRATA: TETRAPODA: MAMMALIA;
OC          EUTHERIA: RODENTIA.
RN          [1]
RP          SEQUENCE FROM N.A.
RC          STRAIN-MAG/RIJ; TISSUE-KIDNEY;
RX          MEDLINE; 90174947.
RA          TIMMENS H.T.H.M., PRONK G.J., BOS J.L., VAN DER EB A.J.;
RL          NUCLEIC ACIDS RES. 18:23-34(1990).
RT          [2]
RP          SEQUENCE FROM N.A.
RC          MEDLINE; 91128376.
RA          YOSHIMURA T., TAKEYA M., TAKAHASHI K.;
RL          BIOCHEM. BIOPHYS. RES. COMMUN. 174:504-509(1991).
CC          -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC          NEUTROPHILS.
CC          -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
CC          -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC          C-C) (CHEMOKINE CC).
DR          EMBL; X17053; G55531; -.
DR          EMBL; M574481; G205334; -.
DR          PIR; JN0128;
DR          PIR; S07723; S07723.
DR          HSSP; P13500; 1MCA.
DR          PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW          CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
KW          SIGNAL 1 23 BY SIMILARITY.

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ET	CHAIN	24	148	MONOCYTE CHEMOTACTIC PROTEIN 1.
ET	MOD_RES	24	24	PIROLIDONE CARBOXYLIC ACID (BY SIMILARITY).
ET	DISULFID	34	59	BY SIMILARITY.
ET	DISULFID	35	75	BY SIMILARITY.
ET	CARBOHYD	126	126	POTENTIAL.
SO	SEQUENCE	148 AA;	16460 MW;	DB97F97C CRC32;

Query Match	78.4%;	Score 76;	DB 1;	Length 148;
Best Local Similarity	75.0%;	Pred. No. 4.73e-05;		
Matches	9;	Conservative	1;	Mismatches 2;
			Indels	0;
			Gaps	0

```
Db      73 EICADPNKEWQ 84
        |||||: |||
Qy      1 EICADPKQKWQ 12
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RESULT	28	STANDARD:	PRT:	89	AA.
ID	SDFL MOUSE				
AC	P40224;				
DT	01-FEB-1995 (REL. 31, CREATED)				
DT	01-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE)				
DT	01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)				
DE	STROMAL CELL-DERIVED FACTOR 1 PRECURSOR (SDC-1) (PRE-B CELL GROWTH				
DE	STIMULATING FACTOR) (PBSF) (12-O-TETRADECANOLPHOROL 13-ACETATE				
DE	RERESSED PROTEIN 1) (TPARI) (THYMIC LYMPHOMA CELL STIMULATING FACTOR				
DE	(TLSEF).				
GN	SDFL.				
OS	MUS MUSCULUS (MOUSE).				
OC	EUFAROTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;				
OC	EUTHERIA; RODENTIA.				
RA	[1]				
RA	SEQUENCE FROM N.A.				
RA	MEDLINE; 94181581.				
RA	MAGASAMA T., KIRUTANI H., KISHIMOTO T.;				
RA	PROC. NATL. ACAD. SCI. U.S.A. 91:2305-2309(1994).				
RN	[2]				
RN	SEQUENCE FROM N.A.				
RN	MEDLINE; 93342488.				
RX	TASHIRO K., TADA H., HEIKER R., SHIROZU M., NAKANO T., HONO T.;				
RL	SCIENCE 261:600-603(1993).				
RN	[3]				
RN	SEQUENCE FROM N.A.				
RX	MEDLINE; 95073497.				
RA	JIANG W., ZHOU P., KAHN S.M., TOMITA N., JOHNSON M.D.;				
RA	WEINSTEIN I.B.;				
RL	EXP. CELL RES. 215:284-293(1994).				
RN	[4]				
RN	SEQUENCE FROM N.A.				
RP	STEAIN-AR/J;				
RA	NUMATA M., NAKATA Y., UZAWA A., NOSE M., AKASHI M., SUZUKI G.;				
RL	SUBMITTED (DEC-1994) TO EMBL/GENBANK/DBJ DATA BANKS.				
CC	-1- FUNCTION: CHEMOTACTICANT ACTIVE ON T-LYMPHOCYTES, MONOCYTES, BUT				
CC	NOT NEUTROPHILS.				
CC	-1- FUNCTION: STIMULATES THE PROLIFERATION OF BONE MARROW-DERIVED B				
CC	PROGENITOR CELLS IN THE PRESENCE OF IL-7 AS WELL AS GROWTH OF THE				
CC	STROMAL CELL-DEPENDENT B-CELL CLONE DW34 CELLS.				
CC	-1- ALTERNATIVE PRODUCTS: TWO DIFFERENT FORMS (ALPHA AND BETA) ARE				
CC	PROBABLY GENERATED BY ALTERNATIVE SPLICING.				
CC	-1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE				
CC	C-X-C) (CHEMOKINE CXCL).				
DR	EMBL; D21072; G468437; -.				
DR	EMBL; L12029; G393180; -.				
DR	EMBL; L12030; G393182; -.				
DR	EMBL; S74318; G786394; -.				
DR	EMBL; D43804; G1304174; -.				
DR	EMBL; D43805; G1304175; -.				
DR	PIR; A53497; A53497				
DR	MGJ; MGJ103556; SDF1.				
DR	PROSITE; PS00471; SMALL_CYTOKINES_CXC; FALSE-NEG.				
FW	CYCLOKINE; CHEMOTAXIS; GROWTH FACTOR; SIGNAL; ALTERNATIVE SPLICING.				
TT	SIGNAL				
TT	1				
TT	20				
TT	89				
TT	19				
TT	POTENTIAL.				
TT	STROMAL CELL-DERIVED FACTOR 1.				

FT DISULFID 30 55 BY SIMILARITY.
FT DISULFID 32 71 BY SIMILARITY.
FT SEQUENCE 89 89 K -> KRLKM (IN FORM BETA).
SQ SEQUENCE 89 AA: 10032 MW: 222C4E52 CRC32;
Query Match 77.3%; Score 75; DB 1; Length 89;
Best Local Similarity 58.3%; Pred. No. 8.17e-05;
Matches 7; Conservative 3; Mismatches 2; Indels 0; Gaps 0;
Db 69 QVCIDPKLKWIO 80
OY 1 EICADPKOKWVO 12
RESULT 29
ID SDF1_HUMAN STANDARD; PRT; 93 AA.
AC P48061;
DT 01-FEB-1996 (REL. 33, CREATED)
DT 01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE STROMAL CELL-DERIVED FACTOR 1 PRECURSOR (SDF-1) (PRE-B CELL GROWTH
DE STIMULATING FACTOR) (PBSF).
GN SDF1.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; PRIMATES.
PN [1]
RP SEQUENCE FROM N.A.
RA SPOTILIA L.D.;
RL SUBMITTED (OCT-1994) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE; 96039262.
RA SHIROU M., NAKANO T., INAZAWA J., TASHIRO K., TADA H.,
RA SHIMOHARA T., HONJO T.;
RL GENOMICS 28:495-500(1995).
RN [3]
RP STRUCTURE BY NMR OF 22-88.
RX MEDLINE; 98046030.
RA CRUMP M.P., GONG J.H., LOETSCHER P., RAJARATHNAM K., AMARA A.,
RA ARENZANA-SEISDEDOS F., VIRELIZIER J.L., BAGGIOLINI M., SYKES B.D.,
RA CLARK-LEWIS I.;
RL EMBO J. 16:6996-7007(1997).
CC -1- FUNCTION: CHEMOTACTICANT ACTIVE ON T-LYMPHOCYTES, MONOCYTES, BUT
CC NOT NEUTROPHILS.
CC -1- ALTERNATIVE PRODUCTS: TWO DIFFERENT FORMS (ALPHA AND BETA) ARE
CC PROBABLY GENERATED BY ALTERNATIVE SPLICING.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
CC C-X-C) (CHEMOKINE CXCL).
DR EMBL; U16752; G571508; -.
DR EMBL; L36033; G1220366; -.
DR PDB; 1SDF; 28-JAN-98.
DR PDB; 2SDF; 17-JUN-98.
DR MIM; 600835; -.
DR PROSITE; PS00471; SMALL CYTOKINES CXCL; FALSE NEG.
KW CYTOKINE; CHEMOTAXIS; GROWTH FACTOR; SIGNAL; ALTERNATIVE SPLICING;
KW 3D-STRUCTURE.
FT SIGNAL 1 19 POTENTIAL.
FT CHAIN 20 93 STROMAL CELL-DERIVED FACTOR 1.
FT DISULFID 30 55
FT DISULFID 32 71
SQ SEQUENCE 93 AA: 10666 MW: 4B9911C7 CRC32;
Query Match 77.3%; Score 75; DB 1; Length 93;
Best Local Similarity 58.3%; Pred. No. 8.17e-05;
Matches 7; Conservative 3; Mismatches 2; Indels 0; Gaps 0;
Db 69 QVCIDPKLKWIO 80
OY 1 EICADPKOKWVO 12
RESULT 30

ID MCP3_MOUSE STANDARD; PRT; 97 AA.
AC Q03366;
DT 01-OCT-1993 (REL. 27, CREATED)
DT 01-OCT-1993 (REL. 27, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 3 PRECURSOR (MCP-3) (MONOCYTE
DE CHEMOTACTICANT PROTEIN 3) (INTERCRINE/CHEMOKINE MARCH) (FIC PROTEIN).
GN SCYA7 OR MCP3 OR FIC.
OS MOS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
PN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-MAST CELLS;
RX MEDLINE; 93094785.
RA KULMBURG P.A., HUBER N.E., SCHEER B.J., WRANN M., BAUMBUKER T.;
RL J. EXP. MED. 176:1773-1778(1992).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE; 94271193.
RA THIRION S., NYS G., FITTEN P., MASURE S., VAN DAMME J.,
RA OEDENAKKER G.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 201:493-499(1994).
RN [3]
RP SEQUENCE FROM N.A.
RA WERNER E.;
RL SUBMITTED (JUN-1992) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [4]
RP SEQUENCE FROM N.A.
RX MEDLINE; 93204948.
RA HEINRICH J.N., RYSECK R.P., MACDONALD-BRAVO H., BRAVO R.;
RL MOL. CELL. BIOL. 13:2020-2030(1993).
RN [5]
RP SEQUENCE FROM N.A.
RX MEDLINE; 95081620.
RA JARMIN D.I., KULMBURG P.A., HUBER N.E., BAUMANN G.,
RA PRIESCHL-STRASSMAYR E.E., BAUMBUKER T.;
RL J. IMMUNOL. 153:5720-5729(1994).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND
CC EOSINOPHILS, BUT NOT NEUTROPHILS. AUGMENTS MONOCYTE ANTI-TUMOR
CC ACTIVITY (BY SIMILARITY).
CC -1- SUBUNIT: MONOMER (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL; Z12297; G57938; -.
DR EMBL; L04694; G192926; -.
DR EMBL; S71251; G547089; -.
DR EMBL; X70058; G437873; -.
DR PIR; S30592; S30592.
DR HSP; P13500; IMCA.
DR MGD; MGI:99512; SCYA7.
DR PROSITE; PS00472; SMALL CYTOKINES CC; 1.
KW CYTOKINE; CHEMOTAXIS; HEPARIN-BINDING; GLYCOPROTEIN; SIGNAL;
KW INFLAMMATORY RESPONSE.
FT SIGNAL 1 23 POTENTIAL.
FT CHAIN 24 97 MONOCYTE CHEMOTACTIC PROTEIN 3.
FT MOD_RES 24 24 PYROGLUTAMIC CARBOXYLIC ACID (BY
FT DISULFID 33 57 SIMILARITY).
FT DISULFID 34 73 BY SIMILARITY.
FT CARBOHYD 29 29 POTENTIAL.
FT CONFLICT 57 63 MISSING (IN REF. 5).
FT CONFLICT 74 74 A -> R (IN REF. 4).
SQ SEQUENCE 97 AA: 10999 MW: 682F557E CRC32;
Query Match 77.3%; Score 75; DB 1; Length 97;
Best Local Similarity 58.3%; Pred. No. 8.17e-05;
Matches 7; Conservative 4; Mismatches 1; Indels 0; Gaps 0;
Db 71 EVCAEAHQKWE 82
OY 1 EICADPKOKWVO 12

Thu Apr 1 08:26:05 1999

US-08-927-939-1.rsp

Page 15

Search completed: Thu Apr 1 07:22:34 1999
job time : 32 secs.

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Mpsrch_gp protein - protein database search, using Smith-Waterman algorithm

Run on: Thu Apr 1 07:22:51 1999; MasPar time 5.30 Seconds

Tabular output not generated. 125.027 Million cell updates/sec

Title: >US-08-927-939-1

Description: (1-12) from US08927939.pep

Perfect Score: 1 EICADPKQKMWQ 12

Scoring table:

PAM 150
Gap 15

Searched: 180763 segs, 55169189 residues

Post-processing: Minimum Match 0%

Listing first 100 summaries

Database:

sptrembl8
1:sp:archaea 2:sp:bacteria 3:sp:fungi 4:sp:human
5:sp:invertebrate 6:sp:mammal 7:sp:mhc 8:sp:organelle
9:sp:phage 10:sp:plant 11:sp:rodent 12:sp:unclassified
13:sp:vertebrate 14:sp:virus

Statistics: Mean 25.510; Variance 35.092; scale 0.727

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result	No.	Score	Query Match	Length	DB	ID	Description	Pred. No.
1	81	83.5	395	11	035933		FRACTALKINE.	4.53e-05
2	81	83.5	395	11	035188		NEUROTACTIN.	4.53e-05
3	77	79.4	119	4	000175		MPF-2.	3.48e-04
4	76	78.4	97	11	089093		CC CHEMOKINE S738 PREC	5.76e-04
5	76	78.4	134	4	000585		BETA CHEMOKINE EXODUS-	9.50e-04
6	75	77.3	92	11	088430		CC CHEMOKINE ABCD-1.	2.56e-03
7	73	75.3	97	13	057411		LYMPHOTACTIN PRECURSOR	4.19e-03
8	72	74.2	80	4	014745		LD78 ALPHA BETA PRECUR	4.19e-03
9	72	74.2	95	4	099664		CHEMOKINE EXODUS.	4.19e-03
10	72	74.2	96	11	P97884		CC CHEMOKINE EXODUS.	4.19e-03
11	70	72.2	120	4	015467		IL-10-INDUCIBLE CHEMOK	1.11e-02
12	69	71.1	101	13	093238		CC CHEMOKINE-1.	1.79e-02
13	68	70.1	91	4	043646		RANTES PRECURSOR.	2.89e-02
14	68	70.1	97	6	062812		INTERLEUKIN-8 (FRAGMEN	4.65e-02
15	67	69.1	95	14	098158		ORF K6.	4.65e-02
16	67	69.1	109	11	055038		B LYMPHOCYTE CHEMOATTR	4.65e-02
17	67	69.1	397	4	P78423		CX3C CHEMOKINE PRECURS	4.65e-02
18	66	68.0	93	4	000626		MACROPHAGE-DERIVED CHE	7.45e-02
19	66	68.0	133	11	009006		BETA CHEMOKINE EXODUS	7.45e-02
20	66	68.0	133	11	009002		SMALL INDUCIBLE CYTOKI	7.45e-02

21	64	66.0	760	3	029126		CHITIN SYNTHETASE I.	1.89e-01
22	60	61.9	109	4	043927		CXC CHEMOKINE PRECURSO	1.16e+00
23	59	60.8	187	2	083516		HYPOTHETICAL 21.4 KD P	1.80e+00
24	59	60.8	203	14	067634		ECO Q PROTEIN (FRAGMEN	1.80e+00
25	59	60.8	399	14	068409		ORF UL154.	1.80e+00
26	58	59.8	982	5	093290		HYPOTHETICAL PROTEIN C	2.79e+00
27	58	59.8	1053	2	084834		RIBONUCLEOSIDE REDUCTA	2.79e+00
28	57	58.8	108	11	070460		EBI-1 LIGAND CHEMOKINE	4.30e+00
29	57	58.8	192	10	023536		RESISTANCE GENE HOMOLO	4.30e+00
30	57	58.8	859	14	097013		ENVELOPE GLYCOPROTEIN	4.30e+00
31	57	58.8	1224	5	P91309		CODED FOR BY C. ELEGAN	4.30e+00
32	57	58.8	1361	10	004264		DONMY MILDEN RESISTANC	6.60e+00
33	56	57.7	104	13	073912		K60 PROTEIN PRECURSOR.	6.60e+00
34	56	57.7	522	5	061090		SERINE RICH PROTEIN HO	6.60e+00
35	56	57.7	552	5	046178		RADIAL SPOKEHEAD.	6.60e+00
36	55	56.7	145	2	P74671		HYPOTHETICAL 16.6 KD P	1.01e+01
37	55	56.7	248	10	081404		1-AMINOCYCLOPROPANE-1-	1.01e+01
38	55	56.7	307	10	065737		BETA-GALACTOSIDASE (EC	1.01e+01
39	55	56.7	350	3	006151		CHROMOSOME XII COSMID	1.01e+01
40	55	56.7	397	3	012123		03625P.	1.01e+01
41	55	56.7	466	10	082719		ACC SYNTHASE (EC 4.4.1	1.01e+01
42	55	56.7	491	10	043747		1-AMINOCYCLOPROPANE-1-	1.01e+01
43	55	56.7	497	10	042610		1-AMINOCYCLOPROPANE-1-	1.01e+01
44	55	56.7	730	10	065736		BETA-GALACTOSIDASE (EC	1.01e+01
45	54	55.7	172	2	051136		HIT054 HOMOLOG (FRAGME	1.53e+01
46	54	55.7	475	4	060646		HYPOTHETICAL 53.8 KD P	1.53e+01
47	54	55.7	852	14	073303		ENVELOPE GLYCOPROTEIN.	1.53e+01
48	54	55.7	949	5	P90956		T0103.3.	1.53e+01
49	54	55.7	1825	5	061210		H19M22.1 PROTEIN (FRAG	1.53e+01
50	54	55.7	2276	4	075050		K1A0462 PROTEIN (FRAG	1.53e+01
51	53	54.6	100	14	040501		ENVELOPE GLYCOPROTEIN	2.31e+01
52	53	54.6	143	2	050035		Y2266J.	2.31e+01
53	53	54.6	178	2	031562		UF216 PROTEIN.	2.31e+01
54	53	54.6	208	2	056669		MANNOSE-SENSITIVE HEMA	2.31e+01
55	53	54.6	282	2	P66965		2-HYDROXY-6-OXO-7-METH	2.31e+01
56	53	54.6	629	5	P91819		RNA POLYMERASE II LARG	2.31e+01
57	53	54.6	1422	10	023533		RESISTANCE GENE HOMOLO	2.31e+01
58	52	53.6	95	2	P70808		ATP BINDING PROTEIN (F	3.47e+01
59	52	53.6	101	13	093442		LEFC-1 PROTEIN PRECURS	3.47e+01
60	52	53.6	108	2	050686		INSERTION ELEMENT IS61	3.47e+01
61	52	53.6	117	10	042317		BETA GALACTOSIDASE (FR	3.47e+01
62	52	53.6	332	1	028318		PYRUVATE FORMATE-LYASE	3.47e+01
63	52	53.6	348	3	074739		CONSERVED HYPOTHETICAL	3.47e+01
64	52	53.6	363	7	095394		MHC CLASS I PROTEIN MO	3.47e+01
65	52	53.6	430	2	052417		RUVY.	3.47e+01
66	52	53.6	770	5	060999		CULA.	3.47e+01
67	52	53.6	852	10	023243		BETA-GALACTOSIDASE.	3.47e+01
68	52	53.6	853	10	042150		BETA-GALACTOSIDASE LTK	3.47e+01
69	52	53.6	991	10	080820		T26013.4 PROTEIN.	3.47e+01
70	52	53.6	1589	5	045569		F54P11.2.	3.47e+01
71	52	53.6	1872	11	P70208		PLEXIN 3.	3.47e+01
72	52	53.6	26926	4	010466		TITIN, HEART ISOFORM N	3.47e+01
73	51	52.6	71	7	031525		MHC CLASS IA (FRAGMENT	5.18e+01
74	51	52.6	94	14	098157		VMIP-1B.	5.18e+01
75	51	52.6	94	14	076035		ENVELOPE GLYCOPROTEIN	5.18e+01
76	51	52.6	95	14	075362		ENVELOPE GLYCOPROTEIN	5.18e+01
77	51	52.6	188	5	045136		COSD2.8 PROTEIN.	5.18e+01
78	51	52.6	215	3	000843		PECATTE LYSASE C.	5.18e+01
79	51	52.6	257	11	088827		PLASMA CELL MEMBRANE G	5.18e+01
80	51	52.6	285	14	087013		POSSIBLE REPLICATION A	5.18e+01
81	51	52.6	389	11	058409		389A LONG HYPOTHETICAL	5.18e+01
82	51	52.6	497	14	078694		GLYCOPROTEIN 120 (FRAG	5.18e+01
83	51	52.6	497	14	079985		VIRAL ENVELOPE PROTEIN	5.18e+01
84	51	52.6	724	14	081100		BETA-GALACTOSIDASE (EC	5.18e+01
85	51	52.6	825	2	P73065		HYPOTHETICAL 92.5 KD P	5.18e+01
86	51	52.6	836	9	048483		COMPLETE NUCLEOTIDE SE	5.18e+01
87	51	52.6	847	14	P88525		ENVELOPE GLYCOPROTEIN	5.18e+01
88	51	52.6	854	14	072744		ENVELOPE GLYCOPROTEIN	5.18e+01
89	51	52.6	854	14	097016		ENVELOPE GLYCOPROTEIN	5.18e+01
90	51	52.6	856	14	P88523		ENVELOPE GLYCOPROTEIN	5.18e+01
91	51	52.6	1038	10	023532		RESISTANCE GENE.	5.18e+01
92	51	52.6	1072	5	025157		V-SEEA 5.	5.18e+01
93	51	52.6	1231	5	026153		V-SEEA 4.	5.18e+01

94 51 52.6 2919 14 085431 RNA POLYMERASE
95 50 51.5 167 7 046748 MHC CLASS I HEAVY CHAI
96 50 51.5 202 14 089996 ENVELOPE GLYCOPROTEIN
97 50 51.5 306 5 023084 COSMID ZC8.
98 50 51.5 723 10 082670 BETA-GALACTOSIDASE (EC
99 50 51.5 804 5 P91199 SIMILARITY TO C2 DOMAIN
100 50 51.5 962 14 065162 PC962R.

ALIGNMENTS

RESULT 1
ID 035933 PRELIMINARY; PRT; 395 AA.
AC 035933;
DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE FRCTALKINE.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCUROGNATHI; MURIDAE; MURINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-BALB/C; TISSUE-BRAIN;
RA ROSSI D., HARDIMAN G., COPELAND N., GILBERT D.J., JENKINS N.,
RA ZLOTNIK A., BAZAN J.F.;
RL SUBMITTED (MAR-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
LN EMBL: U92565; G2459677; -.
LN PFM: PF00048; 118; 1.
SQ SEQUENCE 395 AA; 42040 MW; 3997A113 CRC32;

Query Match
Best Local Similarity 83.5%; Score 81; DB 11; Length 395;
Matches 9; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
Db 73 FCADPKKQWQ 83
QY 2 ICADPKKQWQ 12

RESULT 2
ID 035188 PRELIMINARY; PRT; 395 AA.
AC 035188;
DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE NEUROACTIN.
GN SCYD1.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCUROGNATHI; MURIDAE; MURINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE; 97320499.
RA PAN Y., CLARE L., HONG Z., DOLICH S., DEEDS J., GONZALO J., VATH J.,
RA GOSSELIN M., MA J., DUSSAULT B., WOOLF B., ALPERIN A., CULPEPPER J.,
RA GUTIERREZ-RAMOS J.C., GEARING D.;
RT "Neurotactin," a membrane-anchored chemokine upregulated in brain
inflammation."
RL NATURE 387:611-617(1997).
DR EMBL: AF010586; G2317698; -.
DR MGD: MGI:1097153; SCYD1.
DR PFM: PF00048; 118; 1.
SQ SEQUENCE 395 AA; 42098 MW; E3CD0612 CRC32;

Query Match
Best Local Similarity 83.5%; Score 81; DB 11; Length 395;
Matches 9; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
Db 73 FCADPKKQWQ 83
QY 2 ICADPKKQWQ 12

RESULT 3
ID 000175 PRELIMINARY; PRT; 119 AA.
AC 000175;
DT 01-JUL-1997 (TREMBLREL. 04, CREATED)
DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE MRF2.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RA PATEL V.P., KREIDER B.L., LI Y., LI H., LEUNG K., SALCEDO T.,
RA MADELLI B., PIPALLA V., GENTZ S., THOTAKURA R., PARMELEE D.,
RA GENTZ R., GAROTTA G.;
RL J. EXP. MED. 0:0-0(0).
DR EMBL: U85768; G1916252; -.
DR PFM: PF00048; 118; 1.
SQ SEQUENCE 119 AA; 13119 MW; CDF526F0 CRC32;

Query Match
Best Local Similarity 79.4%; Score 77; DB 4; Length 119;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 72 QFCGDPKQWQ 83
QY 1 ICADPKKQWQ 12

RESULT 4
ID 089093 PRELIMINARY; PRT; 97 AA.
AC 089093;
DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE CC CHEMOKINE ST38 PRECURSOR.
GN LARC.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
OC RODENTIA; SCUROGNATHI; MURIDAE; MURINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RA TRANS-SCHNEITZ U., LOREZ H., KLINKERT W.E.F., DA SILVA J.,
RA LESSLAUER W.;
RT "A novel rat CC chemokine, identified by targeted differential
RT display, is upregulated in brain inflammation."
RL J. NEUROIMMUNOL. 0:0-0(1998).
RN [2]
RP SEQUENCE FROM N.A.
RA VILLANES R.;
RL SUBMITTED (JUL-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: AF053313; G3551819; -.
DR EMBL: AJ007862; E1312757; -.
KW SIGNAL.
FT SIGNAL. 1 27 POTENTIAL.
FT CHAIN 28 97 CC CHEMOKINE ST38.
SQ SEQUENCE 97 AA; 10826 MW; 053405BD CRC32;

Query Match
Best Local Similarity 78.4%; Score 76; DB 11; Length 97;
Matches 8; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 74 VCADPKQWV 83
QY 2 ICADPKQWV 11

RESULT 5
ID 000585 PRELIMINARY; PRT; 134 AA.
AC 000585;
DT 01-JUL-1997 (TREMBLREL. 04, CREATED)
DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)

DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 3E BETA CHEMOKINE EXODUS-2.
 75 HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
 OC CATARRHINI; HOMINIDAE; HOMO.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA HROMAS R.A., GRAY P., KLEMS M., FIFE K., BROXMEYER H.;
 RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 97400322.
 RA HEDRICK J.A.; ZLOTNIK A.;
 RT "Identification and characterization of a novel beta chemokine
 containing six conserved cysteines.";
 RL J. IMMUNOL. 159:1589-1593(1997).
 RN [3]
 RP SEQUENCE FROM N.A.
 RA HEDRICK J.A.; ZLOTNIK A.;
 RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [4]
 RP SEQUENCE FROM N.A.
 RA NAGIRA M., IMAI T., HIESHIMA K., KUSUDA J., RIDANPAA M., TAKAGI S.,
 RA NISHIMURA M., KAKIZAKI M., NOMIYAMA H., YOSHIE O.;
 RL SUBMITTED (AUG-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: U88320; G2196920; -
 DR EMBL: AF001979; G2624925; -
 DR EMBL: AB002409; D1022673; -
 DR PFM: PF00048; I18; 1.
 SQ SEQUENCE 134 AA; 14646 MW; FE86A239 CRC32;

Query Match 78.4%; Score 76; DB 4; Length 134;
 Best Local Similarity 75.0%; Pred. No. 5.76e-04;
 Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 73 EICADPKELWQ 84
 1 EICADPKQKWQ 12

RESULT 6
 ID 088430 PRELIMINARY: PRT: 92 AA.
 AC 088430:
 DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE CC CHEMOKINE ABCD-1.
 OS MUS MUSCULUS (MOUSE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
 OC RODENTIA; SCIROGNATHI; MORIDAE; MORINAE; MUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-LIVER;
 RX MEDLINE: 98353531.
 RA SCHANIEL C., PARDALI E., SALLUSTO F., SPELETAS M., RUDEL C.,
 RA SHIRIZ T., SEIDL T., ANDERSSON J., MELCHERS F., ROLINK A.G.,
 RA SIDERAS P.;
 RT "Activated murine B lymphocytes and dendritic cells produce a novel
 CC chemokine which acts selectively on activated T cells.";
 RL J. EXP. MED. 188:451-463(1998).
 DR EMBL: AF052505; G3378116; -
 SQ SEQUENCE 92 AA; 10302 MW; BC7219A0 CRC32;

Query Match 77.3%; Score 75; DB 11; Length 92;
 Best Local Similarity 72.7%; Pred. No. 9.50e-04;
 Matches 8; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 74 DICADPROVW 84
 1 EICADPKQKWQ 11

RESULT 7

ID 057411 PRELIMINARY: PRT: 97 AA.
 AC 057411:
 DT 01-JUN-1998 (TREMBLREL. 06, CREATED)
 DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
 DT 01-JUN-1998 (TREMBLREL. 06, LAST ANNOTATION UPDATE)
 DE LYMPHOTACTIN PRECURSOR.
 OS GALLUS GALLUS (CHICKEN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; ARCHOSAURIA; AVES;
 OC NEOGNATHAE; GALLIFORMES; PHASIANIDAE; PHASIANINAE; GALLUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-SPLEEN.
 RA ROSSI D.L., BAZAN J.F., ZLOTNIK A.;
 RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: AF006742; G2827882; -
 KW SIGNAL.
 FT SIGNAL 25 24 POTENTIAL.
 FT CHAIN 25 97 LYMPHOTACTIN.
 SQ SEQUENCE 97 AA; 11131 MW; 3290101C CRC32;

Query Match 75.3%; Score 73; DB 13; Length 97;
 Best Local Similarity 72.7%; Pred. No. 2.56e-03;
 Matches 8; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Db 72 ICVHPDQKWQ 82
 2 ICADPKQKWQ 12

RESULT 8
 ID 014745 PRELIMINARY: PRT: 80 AA.
 AC 014745:
 DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
 DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
 DT 01-NOV-1996 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE LD78 ALPHA BETA PRECURSOR (FRAGMENT).
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
 OC CATARRHINI; HOMINIDAE; HOMO.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-BRAIN;
 RA ISHIZUKA K., IGATA-YI R., NARUSE K., NAKASHIMA H., OHUCHI K.,
 RA KATSURAGI S., KIN Y., OHMOTO Y., NOMIYAMA H., ITO M., MURA R.,
 RA MIYAKAWA T.;
 RL SUBMITTED (AUG-1995) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: D63785; G961440; -
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 DR PFM: PF00048; I18; 1.
 KW SIGNAL.
 FT NON_TER 1 1
 FT SIGNAL <1 16 POTENTIAL.
 FT CHAIN 17 >80 LD78 ALPHA BETA.
 FT NON_TER 80 80
 SQ SEQUENCE 80 AA; 8857 MW; 3F87F1C6 CRC32;

Query Match 74.2%; Score 72; DB 4; Length 80;
 Best Local Similarity 58.3%; Pred. No. 4.19e-03;
 Matches 7; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Db 65 QVCADPSEWQ 76
 1 EICADPKQKWQ 12

RESULT 9
 ID 099664 PRELIMINARY: PRT: 95 AA.
 AC 099664:
 DT 01-MAY-1997 (TREMBLREL. 03, CREATED)
 DT 01-MAY-1997 (TREMBLREL. 03, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE CHEMOKINE EXODUS.
 OS HOMO SAPIENS (HUMAN).

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OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-PANCREAS;
RX MEDLINE; 92725143.
RA HROMAS R., GRAY P.W., CHANTRY D., GODISKA R., KRATHWOHL M., FIRE K.,
  BELL G.I., TAKEDA J., ARONICA S., GORDON M., COOPER S., BROMMEYER H.E.,
  KLEMSZ M.J.;
  "Cloning and characterization of exodus, a novel beta-chemokine.";
  RL BLOOD 89;3315-3322(1997).
DR EMBL; U64197; G178717; -.
DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
DR PFAM; PF00048; 118; 1.
SQ SEQUENCE 95 AA; 10691 MW; 1526BAC0 CRC32;

Query Match
Best Local Similarity 70.0%; Score 72; DB 4; Length 95;
Matches 7; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 72 VCADPKQKW 81
QY 2 ICADPKQKW 11

RESULT 10
ID P97884 PRELIMINARY; PRT; 96 AA.
AC P97884;
DT 01-MAY-1997 (TREMBLREL. 03, CREATED)
DT 01-MAY-1997 (TREMBLREL. 03, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE CC CHEMOKINE EXODUS.
OS RATUUS NORVEGICUS (RAT).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCUROGNATHI; MORIDAE; MORINAE; RATUUS.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-SPRAGUE-DAWLEY;
RA KEINER G.S., MACIEJEMSKI-LENOIR D., LEE E.D., MART R.A.;
RL SUBMITTED (FEB-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]
RP SEQUENCE FROM N.A.
RC STRAIN-FISHER 344; TISSUE-BRAIN;
RA UTRANS-SCHNEITZ U., LOREZ H., KLINKERT W.E.F., DA SILVA J.,
  LESSLAUER W.;
  "A novel rat CC chemokine, identified by targeted differential
  RT display, is upregulated in brain inflammation.";
  RL J. NEUROIMMUNOL. 0;0-0(1998).
DR EMBL; U90447; G189246; -.
DR EMBL; AF053312; G3551817; -.
DR PFAM; PF00048; 118; 1.
KW SIGNAL.
SQ SEQUENCE 96 AA; 10875 MW; 3FC09DD8 CRC32;

Query Match
Best Local Similarity 80.0%; Score 72; DB 11; Length 96;
Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 73 VCADPKQIW 82
QY 2 ICADPKQKW 11

RESULT 11
ID O15467 PRELIMINARY; PRT; 120 AA.
AC O15467;
DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE IT-10-INDUCIBLE CHEMOKINE.
DE ITINCK OR SCYAL6.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;

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OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RA HEDRICK J.A., HELMS A., GORMAN D., ZLOTNIK A.;
RL SUBMITTED (NOV-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]
RP SEQUENCE FROM N.A.
RC TISSUE-LIVER;
RA SHOUDEI K., HIESHIMA K., FUKUDA S., IIO M., MIURA R., IMAI T.,
  YOSHIE O., NOMIYAMA H.;
  RL BIOCHIM. BIOPHYS. ACTA 0;0-0(1998).
RN [3]
RP SEQUENCE FROM N.A.
RA NOMIYAMA H.;
  "Structure of a region of 181 kb containing five CC chemokine genes.";
  RL SUBMITTED (AUG-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [4]
RP SEQUENCE FROM N.A.
RX MEDLINE; 98308096.
RA YOUN B.S., ZHANG S., BROMMEYER H.E., ANTOL K., FRASER M.J. JR.,
  HANGOC G., KWON B.S.;
  "Isolation and characterization of LMC, a novel lymphocyte and
  RT monocytic chemottractant human CC chemokine, with myelosuppressive
  RT activity.";
  RL BIOCHEM. BIOPHYS. RES. COMMUN. 247;217-222(1998).
DR EMBL; U91746; G2581781; -.
DR EMBL; AB007454; D1024563; -.
DR EMBL; AF088219; G3719365; -.
DR EMBL; AF055467; G3395776; -.
DR PFAM; PF00048; 118; 1.
KW SIGNAL.
SQ SEQUENCE 120 AA; 13600 MW; A079DF66 CRC32;

Query Match
Best Local Similarity 72.2%; Score 70; DB 4; Length 120;
Matches 6; Conservative 5; Mismatches 1; Indels 0; Gaps 0;

Db 74 EVCNPNDDWQ 85
QY 1 ETCADPKQKW 12

RESULT 12
ID O93238 PRELIMINARY; PRT; 101 AA.
AC O93238;
DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE CC CHEMOKINE-1.
OS CYPRINUS CARPIO (COMMON CARP).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; ACTINOPTERYGII; NEOPTERYGII;
OC TELEOSTEI; EUTELEOSTEI; OSTARIOPHYSI; CYPRINIFORMES; CYPRINIDEA;
OC CYPRINIDAE; CYPRININAE; CYPRINUS.
RN [1]
RP SEQUENCE FROM N.A.
RA FUJIKI K., NAKAO M., SHIN D., YANO T.;
  "cDNA cloning of a carp CC chemokine homologous to mammalian
  RT eotaxins.";
  RL SUBMITTED (JAN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; AB010469; D1032417; -.
SQ SEQUENCE 101 AA; 11266 MW; 9CFBD540 CRC32;

Query Match
Best Local Similarity 71.1%; Score 69; DB 13; Length 101;
Matches 7; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 72 EFCSDPKRW 82
QY 1 ETCADPKQKW 11

RESULT 13
ID O43646 PRELIMINARY; PRT; 91 AA.

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AC 043646; 06. CREATED)
DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE RANTES PRECURSOR.
GN SCYAS.
OS HOMO SAPIENS (HUMAN).
OC EUKAROTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RA JANG J.S., KIM B.E.;
RL SUBMITTED (JAN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]
RP SEQUENCE FROM N.A.
RA NOMIYAMA H.;
RL "Structure of a region of 181 kb containing five CC chemokine genes."
DR EMBL: AF043341; G2805632; -;
DR EMBL: AF088219; G3719366; -;
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW SIGNAL.
FT SIGNAL. 1 23 POTENTIAL.
FT CHAIN 24 91 RANTES.
SQ SEQUENCE 91 AA; 9990 MW; CF404FAD CRC32;
Query Match 70.1%; Score 68; DB 4; Length 91;
Best Local Similarity 50.0%; Pred. No. 2.89e-02;
Matches 6; Conservative 4; Mismatches 2; Indels 0; Gaps 0;
Db 71 QVCANPEKKWVR 82
QY 1 EICADPKOKWQ 12
RESULT 14
ID 062812; PRELIMINARY; PRT; 97 AA.
AC 062812;
DI 01-AUG-1998 (TREMBLREL. 07, CREATED)
DI 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
DI 01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
DE INTERLEUKIN-8 (FRAGMENT).
GN IL-8.
OS EQUUS CABALLUS (HORSE).
OC EUKAROTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
OC PERISSODACTYLA; EQUIDAE; EQUUS.
RN [1]
RP SEQUENCE FROM N.A.
RA FRANCHINI M.;
RL TISSUE-BRONCHOALVEOLAR TISSUE.
RC SUBMITTED (APR-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: AF062377; G3126973; -;
FT NON_TER 97 97
SQ SEQUENCE 97 AA; 10742 MW; 00396FBF CRC32;
Query Match 70.1%; Score 68; DB 6; Length 97;
Best Local Similarity 58.3%; Pred. No. 2.89e-02;
Matches 7; Conservative 2; Mismatches 3; Indels 0; Gaps 0;
Db 75 EVCLNPHTKWQ 86
QY 1 EICADPKOKWQ 12
RESULT 15
ID 098158; PRELIMINARY; PRT; 95 AA.
AC 098158; 012569;
DI 01-FEB-1997 (TREMBLREL. 02, CREATED)
DI 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
DI 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE ORF K6.
OS KAPOSI'S SARCOMA-ASSOCIATED HERPESVIRUS.
OC VIRUSES; DSDNA VIRUSES; NO RNA STAGE; HERPESVIRIDAE;

OC GAMMAHERPESVIRINAE; RHADINOVIRUS.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE; 97094384.
RA MOORE P.S., BASHOFF C., WEISS R.A., CHANG Y.;
RT "Molecular mimicry of human cytokine and cytokine response pathway
RT genes by KSHV".
RL SCIENCE 274:1739-1744(1996).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE; 97121480.
RA RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
RA PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
RT "Nucleotide sequence of the Kaposi sarcoma-associated herpesvirus
RT (HHV8)".
RL PROC. NATL. ACAD. SCI. U.S.A. 93:14862-14867(1996).
RN [3]
RP SEQUENCE FROM N.A.
RA RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
RA PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
RL SUBMITTED (OCT-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [4]
RP SEQUENCE FROM N.A.
RA NICHOLAS J., RUYOLO V.R., BURNS W.H., SANDFORD G., MAN X., CIUPO D.,
RA HENDRICKSON S., GAO H.G., HAYWARD G.S., REITZ M.S.;
RL SUBMITTED (NOV-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [5]
RP SEQUENCE FROM N.A.
RA RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
RA PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [6]
RP SEQUENCE FROM N.A.
RX MEDLINE; 97296220.
RA NEIPEL F., ALBRECHT J.C., FLECKENSTEIN B.;
RT "Cell-homologous genes in the Kaposi's sarcoma-associated rhadinovirus
RT human herpesvirus 8: determinants of its pathogenicity?".
RL J. VIROL. 71:4187-4192(1997).
RN [7]
RP SEQUENCE FROM N.A.
RA SUN R., LIN S.-F., MILLER G.;
RL SUBMITTED (SEP-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: U75698; G1718266; -;
DR EMBL: U74585; G1638273; -;
DR EMBL: U93872; G2246546; -;
DR EMBL: U71366; G3551763; -;
DR PFAM: PF00048; 118; 1.
KW HYPOTHEICAL PROTEIN.
SQ SEQUENCE 95 AA; 10485 MW; 5283348D CRC32;
Query Match 69.1%; Score 67; DB 14; Length 95;
Best Local Similarity 58.3%; Pred. No. 4.65e-02;
Matches 7; Conservative 3; Mismatches 2; Indels 0; Gaps 0;
Db 74 QICADPSKNWVR 85
QY 1 EICADPKOKWQ 12
RESULT 16
ID 055038; PRELIMINARY; PRT; 109 AA.
AC 055038;
DI 01-JUN-1998 (TREMBLREL. 06, CREATED)
DI 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
DI 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE B LYMPHOCYTE CHEMOATTRACTANT BLC.
OS MUS MUSCULUS (MOUSE).
OC EUKAROTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCIURIONATHI; MURIDAE; MURINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-C57BL/6J;
RX MEDLINE; 98146056.

RA GUNN M.D., NGO V.N., ANSEL K.M., EKLAND E.H., CYSTER J.G.,
 RA WILLIAMS L.T.;
 RT "A B-cell-homing chemokine made in lymphoid follicles activates
 Burkitt's lymphoma receptor-1.";
 RL NATURE 391:799-803(1998).
 DR EMBL: AF044196; G2911374; -
 SQ SEQUENCE 109 AA; 11927 MW; BB6CCC22 CRC32;

Query Match 69.18; Score 67; DB 11; Length 109;
 Best Local Similarity 54.58; Pred. No. 4.65e-02;
 Matches 6; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Db 74 ICVNPRAKMW 84
 11:11:11:11
 QY 2 ICADPRKQKW 12

RESULT 17 PRELIMINARY; PRT; 397 AA.
 AC P78423; 000672;
 DT 01-MAY-1997 (TREMBLREL. 03, CREATED)
 DT 01-MAY-1997 (TREMBLREL. 03, LAST SEQUENCE UPDATE)
 DE CX3C CHEMOKINE PRECURSOR.
 GN A-152E5.2.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
 OC CATARRHINI; HOMINIDAE; HOMO.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 9717711.
 RA BAZAN J.F., BACON K.B., HARDIMAN G., WANG W., SOO K., ROSSI D.,
 RA GREAVES D.R., ZLOTNIK A., SCHALL T.J.;
 RT "A new class of membrane-bound chemokine with a CX3C motif.";
 RL NATURE 385:640-644(1997).
 RN [2]
 RP SEQUENCE FROM N.A.
 RA ADAMS M.D., LOFTUS B.J., ZHOU L., CROSBY M., FUHRMANN J., MASON T.M.,
 RA BRANDON R., KIM U.J., KERLAUVE A.R., VENTER J.C.;
 RT "Home sapiens Chromosome 16 BAC clone C1987SK-A-152E5.";
 RL SUBMITTED (JUN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: U91835; G1889259; -
 DR EMBL: U84487; G1888523; -
 DR EMBL: AC004382; G3252821; -
 DR PFAM: PF00048; 118; 1.
 KW SIGNAL.
 FT SIGNAL. 1 24 POTENTIAL.
 FT CHAIN 25 397 CX3C CHEMOKINE.
 SQ SEQUENCE 397 AA; 42202 MW; C8093DD7D CRC32;

Query Match 69.18; Score 67; DB 4; Length 397;
 Best Local Similarity 70.08; Pred. No. 4.65e-02;
 Matches 7; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 73 FCADPRKQW 82
 11:11:11:11
 QY 2 ICADPRKQW 11

RESULT 18 PRELIMINARY; PRT; 93 AA.
 AC 000626;
 DT 01-JUL-1997 (TREMBLREL. 04, CREATED)
 DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
 DE MACROPHAGE-DERIVED CHEMOKINE PRECURSOR.
 GN MDC OR A-152E5.1.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
 OC CATARRHINI; HOMINIDAE; HOMO.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA GODISKA R., CHANTREY D., RAPORT C.J., SOZZANI S., ALLAVENA P.,

RA MANTOVANI A., GRAY P.W.;
 RL J. EXP. MED. 185:0-0(0).
 RN [2]
 RP SEQUENCE FROM N.A.
 RA CHANG M.S., MCNICH J., ELIAS III C., MANTHEY C.L., GROSSHANS D.,
 RA MENG T., BOONE T., ANDREW D.P.;
 RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [3]
 RP SEQUENCE FROM N.A.
 RA ADAMS M.D., LOFTUS B.J., ZHOU L., CROSBY M., FUHRMANN J., MASON T.M.,
 RA BRANDON R., KIM U.J., KERLAUVE A.R., VENTER J.C.;
 RT "Home sapiens Chromosome 16 BAC clone C1987SK-A-152E5.";
 RL SUBMITTED (JUN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: U83171; G1931581; -
 DR EMBL: U83239; G2062425; -
 DR EMBL: AC004382; G3252820; -
 DR PFAM: PF00048; 118; 1.
 KW SIGNAL.
 FT SIGNAL. 1 24 POTENTIAL.
 FT CHAIN 25 93 MACROPHAGE-DERIVED CHEMOKINE.
 SQ SEQUENCE 93 AA; 10580 MW; 65EA63D2 CRC32;

Query Match 68.08; Score 66; DB 4; Length 93;
 Best Local Similarity 72.78; Pred. No. 7.45e-02;
 Matches 8; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 74 EICADPRKQW 84
 11:11:11:11
 QY 1 EICADPRKQW 11

RESULT 19 PRELIMINARY; PRT; 133 AA.
 AC 009006;
 DT 01-JUL-1997 (TREMBLREL. 04, CREATED)
 DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
 DE BETA CHEMOKINE EXODUS-2.
 GN SCIA21.
 OS MUS MUSCULUS (MOUSE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
 OC SCIUROGNATHI; MURIDAE; MURINAE; MUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-TOTAL FETUS;
 RX MEDLINE: 97444139.
 RA HROMAS R., KIM C.H., KLEMSZ M., KRATHWOHL M., FIFE K., COOPER S.,
 RA SCHNITZLEIN-BICK C., BROCKMEYER H.E.;
 RT "Isolation and characterization of Exodus-2, a novel C-C chemokine
 with a unique 37-amino acid carboxyl-terminal extension.";
 RL J. IMMUNOL. 159:2534-2538(1997).
 RN [2]
 RP SEQUENCE FROM N.A.
 RC TISSUE-TOTAL FETUS;
 RA HROMAS R.A.;
 RL SUBMITTED (JUN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: U88322; G3169697; -
 DR MGD: MGI:1097677; SCYA21.
 DR PFAM: PF00048; 118; 1.
 SQ SEQUENCE 133 AA; 14600 MW; B34A5E22 CRC32;

Query Match 68.08; Score 66; DB 11; Length 133;
 Best Local Similarity 58.38; Pred. No. 7.45e-02;
 Matches 7; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Db 73 EICANPEQWQ 84
 11:11:11:11
 QY 1 EICADPRKQW 12

RESULT 20 PRELIMINARY; PRT; 133 AA.
 ID 009002
 AC 009002;

RA HATCH B., HORST K., ROBERTS K., WATTHEY L., WEIDMAN J., SMITH H.O.,
 RA VENTER J.C.;
 RL SUBMITTED (MAR-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: AE001226; G3322795; -;
 KW HYPOTHETICAL PROTEIN.
 SQ SEQUENCE 187 AA; 21410 MW; 50303E26 CRC32;

Query Match 60.8%; Score 59; DB 2; Length 187;
 Best Local Similarity 63.6%; Pred. No. 1.80e+00;
 Matches 7; Conservative 3; Mismatches 0; Indels 1; Gaps 1;

Db 31 CTOPEVOKWVQ 41
 : : : : :
 QY 3 CADPK-QKWVQ 12

RESULT 24
 ID 067634 PRELIMINARY; PRT; 203 AA.
 AC 067634;
 DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
 DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE ECO Q PROTEIN (FRAGMENT).
 OS GALLID HERPESVIRUS TYPE 1.
 OC VIRUSES; DSDNA VIRUSES, NO RNA STAGE; HERPESVIRIDAE;
 OC ALPHAHERPESVIRINAE; VARICELLOVIRUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-GA;
 RX MEDLINE: 96074534.
 RA PENG O., ZENG M., BHUIYAN Z.A., UBUKATA E., TANAKA A., NONOYAMA M.,
 RA SHIRAZI Y.;
 RT "Isolation and characterization of Marek's disease virus (MDV) cDNAs
 RT mapping to the BamHI-12, BamHI-Q2, and BamHI-L fragments of the MDV
 RT genome from lymphoblastoid cells transformed and persistently infected
 RT with MDV.";
 RL VIROLOGY 213:590-599(1995).
 DR EMBL: U34966; G1185444; -;
 DR PRAM: PF00048; 118; 1;
 FT NON_TER 1
 SQ SEQUENCE 203 AA; 23132 MW; 887D04C3 CRC32;

Query Match 60.8%; Score 59; DB 14; Length 203;
 Best Local Similarity 54.5%; Pred. No. 1.80e+00;
 Matches 6; Conservative 1; Mismatches 4; Indels 0; Gaps 0;

Db 145 VCVDPEAPWVQ 155
 : : : : :
 QY 2 ICADPKOKWVQ 12

RESULT 25
 ID 068409 PRELIMINARY; PRT; 399 AA.
 AC 068409;
 DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
 DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE ORF U154.
 OS HUMAN CYTOMEGALOVIRUS.
 OC VIRUSES; DSDNA VIRUSES, NO RNA STAGE; HERPESVIRIDAE; BETAHERPESVIRINAE;
 OC CYTOMEGALOVIRUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-TOWNE;
 RX MEDLINE: 96099416.
 RA CHA T.A., TOM E., KEMBLE G.W., DUKE G.M., MOCARSKI E.S., SPAETE R.R.;
 RT "Human cytomegalovirus clinical isolates carry at least 19 genes not
 RT found in laboratory strains.";
 RL J. VIROL. 70:78-83(1996).
 DR EMBL: U33323; G1167943; -;
 SQ SEQUENCE 399 AA; 45181 MW; 79B5D103 CRC32;

Query Match 60.8%; Score 59; DB 14; Length 399;

Best Local Similarity 44.4%; Pred. No. 1.80e+00;
 Matches 4; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Db 308 VCEPEKHEW 316
 : : : : :
 QY 2 ICADPKOKW 10

RESULT 26
 ID 093290 PRELIMINARY; PRT; 982 AA.
 AC 093290;
 DT 01-FEB-1997 (TREMBLREL. 02, CREATED)
 DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE HYPOTHETICAL PROTEIN C27D8.3.
 GN C27D8.3.
 OS CAENORHABDITIS ELEGANS.
 OC EUKARYOTA; METAZOA; NEMATODA; SECERNENTEA; RHABDITIA; RHABDITIDA;
 OC RHABDITIA; RHABDITOIDEA; RHABDITIDAE; PELODERINAE; CAENORHABDITIS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA PERCY C.;
 RL SUBMITTED (SEP-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 94150718.
 RA WILSON R., AINSCOUGH R., ANDERSON K., BAYNES C., BERKS M., BONFIELD J.,
 RA BURTON J., CONNELL M., COPSEY T., COOPER J., COULSON A., CRAYTON M.,
 RA DEAR S., DU Z., DUREIN R., FAVELLO A., FULTON L., GARDNER A., GREEN P.,
 RA HAWKINS T., HILLIER L., JIER M., JOHNSTON L., JONES M., KERSHAM J.,
 RA KIRSTEN J., LAISTER N., LATREILLE P., LIGHTNING J., LLOYD C.,
 RA KEMURRAY A., MORTIMORE B., O'CALLAGHAN M., PARSONS J., PERCY C.,
 RA RIFKEN L., ROOPRA A., SAUNDERS D., SHOWNKEN R., SMALDON N., SMITH A.,
 RA SONNHAMMER E., STADEN R., SOLSTON J., THERRY-MIEG J., THOMAS K.,
 RA VANDUN M., VAUGHAN K., WATERSTON R., WATSON A., WEINSTOCK L.,
 RA WILKINSON-SPROAT J., WOLDMAN P.;
 RT "2.2 Mb of contiguous nucleotide sequence from chromosome III of C.
 RT elegans.";
 RL NATURE 368:32-38(1994).
 DR EMBL: Z80214; E347995; -;
 KW HYPOTHETICAL PROTEIN.
 SQ SEQUENCE 982 AA; 112538 MW; 41972852 CRC32;

Query Match 59.8%; Score 58; DB 5; Length 982;
 Best Local Similarity 45.5%; Pred. No. 2.79e+00;
 Matches 5; Conservative 4; Mismatches 2; Indels 0; Gaps 0;

Db 188 VCEPEKOWWTO 198
 : : : : :
 QY 2 ICADPKOKWVQ 12

RESULT 27
 ID 084834 PRELIMINARY; PRT; 1053 AA.
 AC 084834;
 DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE RIBONUCLEOSIDE REDUCTASE, LARGE CHAIN.
 GN NRDA.
 OS CHLAMYDIA TRACHOMATIS.
 OC BACTERIA; CHLAMYDIALES; CHLAMYDIACEAE; CHLAMYDIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-D/UW-3/CX;
 RA STEPHENS R.S., KALMAN S., LAMMEL C.J., FAN J., MARATHE R., ARAVIND L.,
 RA MITCHELL W.P., OLINGER L., TATISOV R.L., ZHAO Q., KOONIN E.V.,
 RA DAVIS R.W.;
 RT "Genome Sequence of an Obligate Intracellular Pathogen of Humans:
 RT Chlamydia trachomatis.";
 RL SCIENCE 0:0-0(1998).
 RN [2]
 RP SEQUENCE FROM N.A.

RC STRAIN-D/UM-3/CX;
 RA STEPHENS R.S., KALMAN S., LAMMEL C.J., FAN J., MARATHE R., ARAVIND L.,
 RA MITCHELL W.P., OLINGER L., TATISOV R.L., ZHAO Q., KOONIN E.V.,
 RA DAVIS R.W.,
 RL SUBMITTED (MAY-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: AE001355; G3329297;
 SO SEQUENCE 1053 AA; 120168 MW; 781C449 CRC32;

Query Match 59.8%; Score 58; DB 2; Length 1053;
 Best Local Similarity 50.0%; Pred. No. 2.79e+00;
 Matches 5; Conservative 3; Mismatches 2; Indels 0; Gaps 0;
 Db 954 CASROKWD 963
 OY 11:1111:
 3 CADPKOKWQ 12

RESULT 28
 ID 070460 PRELIMINARY; PRT: 108 AA.
 AC 070460:
 DT 01-AUG-1998 (TREMBLREL. 07, CREATED)
 DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
 DT 01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
 DE EBI-1 LIGAND CHEMOKINE.
 OS MUS MUSCULUS (MOUSE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
 OC SCIROGNATHI; MORIDAE; MORINAE; MUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-LYMPHOID:
 RA NGO V.N., TANG H.L., CYSTER J.G.,
 RL J. EXP. MED. 0:0-0(1998).
 DR EMBL: AF059208; G3068765;
 SQ SEQUENCE 108 AA; 11911 MW; E86C4466 CRC32;

Query Match 58.8%; Score 57; DB 11; Length 108;
 Best Local Similarity 50.0%; Pred. No. 4.30e+00;
 Matches 6; Conservative 3; Mismatches 3; Indels 0; Gaps 0;
 Db 73 QLCAPDPQWVD 84
 OY 11:1111:
 1 EICADPKOKWQ 12

RESULT 29
 ID 023536 PRELIMINARY; PRT: 192 AA.
 AC 023536:
 DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
 DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
 DT 01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
 DE RESISTANCE GENE HOMOLOG.
 OS ARABIDOPSIS THALIANA (MOUSE-EAR CRESS).
 OC EUKARYOTA; VIRIDIPHYTES; CHAROPHYTA/EMBRYOPHYTA GROUP; EMBRYOPHYTA;
 OC TRACHEOPHYTA; EUDIPHYTES; SPERMATOPHYTES; MAGNOLIOPHYTA;
 OC EUDICOTYLEDONS; ROSIDAE; CAPRIFOLIALES; BRASSICACEAE; ARABIDOPSIS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA BEVAN M., STIKEMA W., MURPHY G., WAMBUTT R., POHL T., TERRY N.,
 RA KREIS M., KAVANAGH T., ENTIAN K.D., RIEGER M., JAMES R.,
 RA PUIGDOMENECH P., HATZIOPOULOS P., OBERMAIER B., DUESTERHOFF A.,
 RA JONES J., PALME K., ANSORGE W., DEISENY M., BANCROFT I., MEMES H.W.,
 RA SCHUELLER C., CHALMATZIS N.,
 RL SUBMITTED (JUL-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [2]
 RP SEQUENCE FROM N.A.
 RA EU ARABIDOPSIS SEQUENCING PROJECT, ESSA;
 RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: Z97342; E327026;
 SO SEQUENCE 192 AA; 21535 MW; 7BD51863 CRC32;

Query Match 58.8%; Score 57; DB 10; Length 192;
 Best Local Similarity 66.7%; Pred. No. 4.30e+00;
 Matches 6; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 136 GQOKORWQ 144
 OY 11:1111:
 4 ADPKOKWQ 12

RESULT 30
 ID 097013 PRELIMINARY; PRT: 859 AA.
 AC 097013:
 DT 01-FEB-1997 (TREMBLREL. 02, CREATED)
 DT 01-FEB-1997 (TREMBLREL. 02, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE ENVELOPE GLYCOPROTEIN (FRAGMENT).
 OS ENV.
 OS HUMAN IMMUNODEFICIENCY VIRUS TYPE 1 (HIV-1).
 OC VIRUSES; RETROVIRUSES; RETROVIRIDAE; LENTIVIRUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 96190564.
 RA GAO F., MORRISON S.G., ROBERTSON D.L., THORNTON C.L., CRAIG S.,
 RA KARLSSON G., SODROSKI J., MORGADO M., GALVAO-CASTRO B., BRIESE H.,
 RA BEDDOES S., WEBER J., SHARP P.M., SHAW G.M., HAHN B.H.,
 RT "Molecular cloning and analysis of functional envelope genes from
 RT human immunodeficiency virus type 1 sequence subtypes A through G. The
 RT WHO and NIAID Networks for HIV Isolation and Characterization".
 RL J. VIROL. 70:1651-1657(1996).
 RN [2]
 RP SEQUENCE FROM N.A.
 RA ALLEN E.E.,
 RL SUBMITTED (MAY-1995) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: U27443; G1495977;
 DR PFAW; PF00516; GP120; 1.
 DR PFAW; PF00517; GP41; 1.
 KW ENVELOPE PROTEIN.
 FT NON TER
 SQ SEQUENCE 859 AA; 97274 MW; 15339DB3 CRC32;

Query Match 58.8%; Score 57; DB 14; Length 859;
 Best Local Similarity 50.0%; Pred. No. 4.30e+00;
 Matches 5; Conservative 3; Mismatches 2; Indels 0; Gaps 0;
 Db 31 ICSAAEKKV 40
 OY 11:1111:
 2 ICADPKOKWV 11

Search completed: Thu Apr 1 07:23:54 1999
 Job time : 63 secs.

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Msrch_pp protein - protein database search, using Smith-Waterman algorithm

Run on: Thu Apr 1 07:27:49 1999; Maspar time 2.77 Seconds

Tabular output not generated. 58.311 Million cell updates/sec

Title: >US-08-927-939-7
Description: (1-10) from US08927939.pep
Perfect Score: 84
Sequence: 1 CADPKXKXWQ 10

Scoring table: PAM 150
Gap 15

Searched: 131922 seqs, 16180660 residues

Post-processing: Minimum Match 0%
Listing first 100 summaries

Database:

a-geneseq32
1:part1 2:part2 3:part3 4:part4 5:parts 6:part6 7:part7
8:part8 9:part9 10:part10 11:part11 12:part12 13:part13
14:part14 15:part15 16:part16 17:part17 18:part18
19:part19 20:part20 21:part21 22:part22 23:part23
24:part24 25:part25 26:part26 27:part27 28:part28
29:part29

Statistics: Mean 17.840; Variance 60.479; scale 0.295

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description	Pred. No.
1	84	100.0	66 24	W13598	Monocyte chemoattract	6.67e-02
2	84	100.0	67 24	W13599	Monocyte chemoattract	6.67e-02
3	84	100.0	68 24	W13597	Monocyte chemoattract	6.67e-02
4	84	100.0	69 14	R87678	des(12-8) MCP-1.	6.67e-02
5	84	100.0	69 24	W13596	Monocyte chemoattract	6.67e-02
6	84	100.0	76 15	R87680	Monocyte chemoattract	6.67e-02
7	84	100.0	76 10	R53398	Sense MCP-1.	6.67e-02
8	84	100.0	76 5	R28660	MCP-1.	6.67e-02
9	84	100.0	76 14	R87677	(3-1Aa) MCP-1.	6.67e-02
10	84	100.0	76 20	W09374	Monocyte chemoattract	6.67e-02
11	84	100.0	76 21	W11131	Mature human monocyte	6.67e-02
12	84	100.0	76 14	R87675	(28-Asp) MCP-1.	6.67e-02
13	84	100.0	76 1	R90292	Peptide from human g1	6.67e-02
14	84	100.0	76 5	R26580	Sequence of bovine P6	6.67e-02
15	84	100.0	76 14	R87676	(24-Arg) MCP-1.	6.67e-02
16	84	100.0	77 15	R86859	Mature MCP-1.	6.67e-02
17	84	100.0	99 2	P95387	Human monocyte chemo-	6.67e-02
18	84	100.0	99 13	R70800	Chemottractant prote	6.67e-02

19	84	100.0	99 5	R26581	Sequence of P6 precur	6.67e-02
20	84	100.0	99 5	R28663	MCF.	6.67e-02
21	84	100.0	99 14	R73914	Human monocyte chemo	6.67e-02
22	80	95.2	71 27	W22675	Dro13 chemokine beta	1.78e-01
23	80	95.2	75 27	W22673	Bac 3 chemokine beta	1.78e-01
24	80	95.2	77 27	W22672	Bac 2 chemokine beta	1.78e-01
25	80	95.2	79 27	W22674	Dro11/2 chemokine bet	1.78e-01
26	80	95.2	82 27	W22671	Bac 1 chemokine beta	1.78e-01
27	80	95.2	82 24	W17665	Stem cell mobilising	1.78e-01
28	80	95.2	98 28	W30191	Monocyte chemoattract	1.78e-01
29	80	95.2	98 17	R93087	Human chemokine beta-	1.78e-01
30	80	95.2	98 27	W22670	Human chemokine beta	1.78e-01
31	80	95.2	99 2	R06398	Human MCF precursor.	1.78e-01
32	80	95.2	99 26	R26347	Novel murine CX3C 395	1.78e-01
33	80	95.2	395 28	W43308	Mouse neurotactin.	1.78e-01
34	77	91.7	67 14	R73915	Human monocyte chemo	3.69e-01
35	77	91.7	73 13	R70252	Eotaxin chemottracta	3.69e-01
36	77	91.7	82 29	W44721	Amino acid sequence o	3.69e-01
37	77	91.7	96 24	W14991	Guinea pig eosinocyte	3.69e-01
38	77	91.7	97 21	W00667	Pancreas expressed ch	3.69e-01
39	77	91.7	97 23	W10099	Human eotaxin.	3.69e-01
40	77	91.7	97 24	W14990	Human eosinocyte CC t	3.69e-01
41	77	91.7	99 13	R70801	Chemottractant prote	3.69e-01
42	77	91.7	109 2	R24353	Cytokine encoded by c	3.69e-01
43	73	86.9	70 24	W17661	Stem cell mobilising	9.68e-01
44	73	86.9	119 17	R85779	Human monocyte chemot	9.68e-01
45	73	86.9	119 22	W07845	Human monocyte chemot	9.68e-01
46	71	84.5	60 24	W17662	Stem cell mobilising	1.56e+00
47	71	84.5	72 13	R70804	Chemottractant MCP-2	1.56e+00
48	71	84.5	89 14	R76127	Macrophage inflamma	1.56e+00
49	71	84.5	89 21	W07204	Human dendritic cell	1.56e+00
50	71	84.5	89 25	W23643	Human MC propo	1.56e+00
51	71	84.5	109 29	W42072	Human beta-chemokine	1.56e+00
52	71	84.5	109 26	W26655	Eotaxin chemottracta	1.98e+00
53	70	83.3	73 13	R70251	LD78 GIU55>Glu, Glu56	2.51e+00
54	69	82.1	69 7	R39137	Stem cell mobilising	3.18e+00
55	68	81.0	79 24	W17664	Pancreas expressed ch	3.18e+00
56	68	81.0	134 21	W00668	IL8 receptor-interact	4.02e+00
57	67	79.8	18 4	R22353	NAF(44-72) peptide in	4.02e+00
58	67	79.8	29 4	R20237	Modified human interl	4.02e+00
59	67	79.8	67 7	R38086	Modified human interl	4.02e+00
60	67	79.8	67 7	R38087	Modified human interl	4.02e+00
61	67	79.8	68 7	R38085	Modified human interl	4.02e+00
62	67	79.8	68 7	R38084	Modified human interl	4.02e+00
63	67	79.8	69 7	R38082	Modified human interl	4.02e+00
64	67	79.8	69 7	R38081	Modified human interl	4.02e+00
65	67	79.8	69 7	R38942	LD78 GIU55>Arg, Glu56	4.02e+00
66	67	79.8	70 24	W17660	Stem cell mobilising	4.02e+00
67	67	79.8	72 20	R39812	Chemokine-like protei	4.02e+00
68	67	79.8	72 27	W41519	Neutrophil chemotacti	4.02e+00
69	67	79.8	72 11	R70183	Soluble interleukin-8	4.02e+00
70	67	79.8	72 1	R03615	Human neutrophil chem	4.02e+00
71	67	79.8	72 17	R88057	Human interleukin-8.	4.02e+00
72	67	79.8	72 26	P81838	Sequence of a synthe	4.02e+00
73	67	79.8	72 24	W26204	Neutrophil-specific C	4.02e+00
74	67	79.8	72 23	W25703	Mutant human IL-8, E4	4.02e+00
75	67	79.8	72 23	W25713	Mutant human IL-8, F2	4.02e+00
76	67	79.8	72 23	W25707	Mutant human IL-8, Y1	4.02e+00
77	67	79.8	72 23	W25709	Mutant human IL-8, V4	4.02e+00
78	67	79.8	72 23	W25708	Mutant human IL-8, S1	4.02e+00
79	67	79.8	72 23	W25711	Mutant human IL-8, L4	4.02e+00
80	67	79.8	72 23	W25702	Mutant human IL-8, L4	4.02e+00
81	67	79.8	72 1	P09193	Sequence of a synthe	4.02e+00
82	67	79.8	72 1	R03166	Human neutrophil chem	4.02e+00
83	67	79.8	72 22	W04516	Interleukin(1-72) pro	4.02e+00
84	67	79.8	72 20	R39804	Chemokine-like protei	4.02e+00
85	67	79.8	72 20	R39806	Chemokine-like protei	4.02e+00
86	67	79.8	72 20	R39803	Chemokine-like protei	4.02e+00
87	67	79.8	73 20	R39817	Chemokine-like protei	4.02e+00
88	67	79.8	73 20	R39814	Interleukin-8.	4.02e+00
89	67	79.8	73 20	P90078	Human neutrophil acti	4.02e+00
90	67	79.8	73 20	R39818	Chemokine-like protei	4.02e+00
91	67	79.8	77 1	P90017	Human neutrophil acti	4.02e+00

92	67	79.8	89.12	R70994	Protein encoded by CD	4.02e+00
93	67	79.8	89.13	R75419	Human SDF-1-alpha.	4.02e+00
94	67	79.8	93.13	R75420	Human SDF-1-beta.	4.02e+00
95	67	79.8	96.29	W43398	Human chemokine MIP-3	4.02e+00
96	67	79.8	96.27	W43398	Human chemokine beta-4	4.02e+00
97	67	79.8	96.17	R93086	Human chemokine beta-1	4.02e+00
98	67	79.8	97.13	R70795	Interleukin-8/MAP-1.	4.02e+00
99	67	79.8	99.2	P93631	Amino acid sequence o	4.02e+00
100	67	79.8	99.1	R05239	Human neutrophil chem	4.02e+00

ALIGNMENTS

RESULT 1
ID W13598 standard; peptide: 66 AA.
AC W13598;
DE Monocyte chemoattractant protein analogue MCP-1 (10-76).
KW Truncated monocyte chemoattractant protein-1; inhibitor;
KW receptor binding; anti-inflammatory; basophil; lymphocyte; allergy;
KW chronic inflammatory disease; arthritis; arteriosclerosis;
KW lung disease.
OS Homo sapiens.
PN CA2152141-A.
PD 20-DEC-1996.
PF 19-JUN-1995: 152141.
PR 19-JUN-1995: CA-152141.
PA (LEWIS I).
PI Gong J, Lewis I;
DR WPI: 97-165844/16.
PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
PT lacks MCP-1 activity and inhibits receptor binding, useful as
PT anti-inflammatory agent
PS Disclosure; Page 5; 27pp; English.
CC The present sequence represents an analogue, MCP-1 (10-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-9 of MCP-1, acts as an antagonist of MCP-1
CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammatory sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC providing 50% inhibition of binding at a 25:1 ratio or less, compared
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 66 AA;

Query Match 100.0%; Score 84; DB 24; Length 66;
Best Local Similarity 100.0%; Pred. NO. 6.67e-02;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 42 cadpkqkvwg 51
| | | | | | | | | |
QY 1 CADPKQKQWQ 10

RESULT 2
ID W13599 standard; peptide: 67 AA.
AC W13599;
DE Monocyte chemoattractant protein analogue MCP-1 (11-76).
KW Truncated monocyte chemoattractant protein-1; inhibitor;
KW receptor binding; anti-inflammatory; basophil; lymphocyte; allergy;
KW chronic inflammatory disease; arthritis; arteriosclerosis;
KW lung disease.
OS Homo sapiens.
PN CA2152141-A.
PD 20-DEC-1996.
PF 19-JUN-1995: 152141.
PR 19-JUN-1995: CA-152141.
PA (LEWIS I).
PI Gong J, Lewis I;
DR WPI: 97-165844/16.
PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
PT lacks MCP-1 activity and inhibits receptor binding, useful as
PT anti-inflammatory agent
PS Disclosure; Page 5; 27pp; English.
CC The present sequence represents an analogue, MCP-1 (11-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-8 of MCP-1, acts as an antagonist of MCP-1
CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammatory sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC providing 50% inhibition of binding at a 25:1 ratio or less, compared
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 68 AA;

Query Match 100.0%; Score 84; DB 24; Length 68;
Best Local Similarity 100.0%; Pred. NO. 6.67e-02;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 44 cadpkqkvwg 53
| | | | | | | | | |
QY 1 CADPKQKQWQ 10

PI Gong J, Lewis I;
DR WPI: 97-165844/16.
PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
PT lacks MCP-1 activity and inhibits receptor binding, useful as
PT anti-inflammatory agent
PS Disclosure; Page 5; 27pp; English.
CC The present sequence represents an analogue, MCP-1 (11-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-10 of MCP-1, acts as an antagonist of MCP-1
CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammatory sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC providing 50% inhibition of binding at a 25:1 ratio or less, compared
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 67 AA;

Query Match 100.0%; Score 84; DB 24; Length 67;
Best Local Similarity 100.0%; Pred. NO. 6.67e-02;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 43 cadpkqkvwg 52
| | | | | | | | | |
QY 1 CADPKQKQWQ 10

RESULT 3
ID W13597 standard; peptide: 68 AA.
AC W13597;
DE Monocyte chemoattractant protein analogue MCP-1 (9-76).
KW Truncated monocyte chemoattractant protein-1; inhibitor;
KW receptor binding; anti-inflammatory; basophil; lymphocyte; allergy;
KW chronic inflammatory disease; arthritis; arteriosclerosis;
KW lung disease.
OS Homo sapiens.
PN CA2152141-A.
PD 20-DEC-1996.
PF 19-JUN-1995: 152141.
PR 19-JUN-1995: CA-152141.
PA (LEWIS I).
PI Gong J, Lewis I;
DR WPI: 97-165844/16.
PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
PT lacks MCP-1 activity and inhibits receptor binding, useful as
PT anti-inflammatory agent
PS Claim 7; Page 5; 27pp; English.
CC The present sequence represents an analogue, MCP-1 (9-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-8 of MCP-1, acts as an antagonist of MCP-1
CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammatory sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC providing 50% inhibition of binding at a 25:1 ratio or less, compared
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 68 AA;

Query Match 100.0%; Score 84; DB 24; Length 68;
Best Local Similarity 100.0%; Pred. NO. 6.67e-02;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 44 cadpkqkvwg 53
| | | | | | | | | |
QY 1 CADPKQKQWQ 10

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RESULT 4
ID R87678 standard: protein; 69 AA.
AC R87678;
DT 21-FEB-1996 (first entry)
DE des(2-8) MCP-1
KM monocyte chemoattractant protein; MCP-1; mutant; restenosis;
OS Homo sapiens.
FH Key Location/Qualifiers
FT modified_site 2..3
FT /note="amino acids 2-8 of the native protein have
FT been deleted between these residues"
FT disulfide_bond 4..29
FT disulfide_bond 5..45
PN MO9513295-A1.
PD 18-MAY-1995.
PR 07-NOV-1994; U12874.
PR 12-NOV-1993; US-152301.
PA (DAND ) DANA FARBER CANCER INST INC.
PI Rollins B, Zhang YJ;
DR WPI; 95-215051/28.
PT Human monocyte chemoattractant protein-1 (MCP-1) derivs. - are
PT capable of inhibiting the monocyte chemoattractant activity of
PT endogenous MCP-1 and can be used to treat restenosis
PT Claim 4; Page 11; 22pp; English.
CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
CC that they inhibit the monocyte chemoattractant activity of endogenous
CC MCP-1, provided that the derivative has not been modified by the
CC substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
CC are: (1) substitution of 28-Tyr by aspartate; (2) substitution of 24-Arg
CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
CC acids 2-8. The present sequence is a specifically claimed human MCP-1
CC derivative based on the parent protein disclosed in Rollins, Molecular
CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
CC The peptides can be used to prevent restenosis, e.g. in patients
CC undergoing coronary artery angioplasty.
SQ Sequence 69 AA;

Query Match 100.0%; Score 84; DB 14; Length 69;
Best Local Similarity 100.0%; Pred. No. 6.67e-02;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

DB 45 cadpkkqkwg 54
|||
OY 1 CADPKKQKWQ 10

RESULT 5
ID W13596 standard: peptide; 69 AA.
AC W13596;
DT 07-NOV-1997 (first entry)
DE Monocyte chemoattractant protein analogue MCP-1 (8-76).
KM Truncated monocyte chemoattractant protein-1; inhibitor;
KM receptor binding; anti-inflammatory; basophil; lymphocyte; allergy;
KM chronic inflammatory disease; arthritis; arteriosclerosis;
KM lung disease.
OS Homo sapiens.
PN CA2152141-A.
PD 20-DEC-1996.
PR 19-JUN-1995; 152141.
PR 19-JUN-1995; CA-152141.
PA (LEWIS I) LEWIS I.
PI Gong J, Lewis I;
DR WPI; 97-165844/16.
PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
PT lacks MCP-1 activity and inhibits receptor binding, useful as
PT anti-inflammatory agent
PT Claim 5; Page 5; 27pp; English.
CC The present sequence represents an analogue, MCP-1 (8-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-7 of MCP-1, acts as an antagonist of MCP-1

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CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammation sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC providing 50% inhibition of binding at a 25:1 ratio or less, compared
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 69 AA;

Query Match 100.0%; Score 84; DB 24; Length 69;
Best Local Similarity 100.0%; Pred. No. 6.67e-02;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

DB 45 cadpkkqkwg 54
|||
OY 1 CADPKKQKWQ 10

RESULT 6
ID R87680 standard: protein; 76 AA.
AC R87680;
DT 05-MAR-1996 (first entry)
DE Monocyte chemotactic activating factor for use as wound remedy.
KM Monocyte chemotactic activating factor; MCAF; wound remedy.
OS Homo sapiens.
PN MO9507710-A1.
PD 23-MAR-1995.
PR 13-SEP-1994; J01512.
PR 13-SEP-1993; JP-227385.
PA (TORA ) TORAY IND INC.
PI Matsushima K, Naruto M;
DR WPI; 95-131181/17.
PT Wound treatment using monocyte chemotactic factor - has potent
PT therapeutic effect on skin wounds and ulcers
PT Disclosure; Page 12; 22pp; Japanese.
CC The invention relates to a new remedy for curing wounds which, instead
CC of comprising a growth factor, comprises a monocyte chemotactic
CC activating factor (MCAF) or its variants or derivatives. The factor has
CC potent effect on skin wounds and ulcers. The present sequence is human
CC MCAF, the activity of which is exemplified as the new remedy.
SQ Sequence 76 AA;

Query Match 100.0%; Score 84; DB 15; Length 76;
Best Local Similarity 100.0%; Pred. No. 6.67e-02;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

DB 52 cadpkkqkwg 61
|||
OY 1 CADPKKQKWQ 10

RESULT 7
ID R53398 standard: Protein; 76 AA.
AC R53398;
DT 15-DEC-1994 (first entry)
DE Sense MCP-1
KM Antisense; RNA; DNA; monocyte chemotactic protein-1; MCP-1;
KM radionuclide; vascular restenosis; alpha; beta; emitting isotope;
KM diagnosis; monocytes; vascular injury.
OS Mammalian.
FH Key Location/Qualifiers
FT misc_difference 1 /note="Unspecified amino acid"
FT PN MO9409128-A.
FT PD 28-APR-1994.
FT PF 20-OCT-1993; U10074.
FT PR 22-OCT-1992; US-965678.
PA (MLCW ) MALLINKRODT MEDICAL INC.
PI Lyle LR;
DR WPI; 94-151314/18.

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PT Anti-sense monocyte chemotactic protein-1 oligo:nucleotide(s) and
 PT peptide(s) - is used for inhibiting, treating or imaging areas of
 PT Vascular restenosis or potential restenosis
 PS Disclosure; Page 5; 42pp; English.
 CC The sequences given in R53398-99 represent sense and antisense
 CC monocyte chemotactic protein-1 (MCP-1) respectively. These
 CC oligonucleotides may be labelled with a radionuclide and use
 CC therapeutically for the treatment of vascular restenosis.
 CC Radiolabelled antisense MCP-1 compounds may be constructed using high
 CC energy alpha or beta emitting isotopes rather than the gamma
 CC emitters customarily used for diagnostic purposes. Antisense MCP-1
 CC compounds inactivate MCP-1 or inhibit production of MCP-1 so that
 CC monocytes are not attracted to the area of vascular injury and
 CC proliferation of vascular cells is inhibited.
 SQ Sequence 76 AA;

Query Match 100.0%; Score 84; DB 10; Length 76;
 Best Local Similarity 100.0%; Pred. No. 6.67e-02;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 52 cadpkqkwwq 61
 |||||
 QY 1 CADPKQKWWQ 10

RESULT 8
 ID R28660 standard; Protein: 76 AA.
 AC R28660;
 DT 24-MAR-1993 (first entry)
 DE MCF.
 KW Plasmid: monocyte chemotactic factor; MCF: translation;
 KW termination; terminator; initiation; ribosome binding site;
 KW RBS; promoter: tryptophan; repressor.
 OS Synthetic.
 PN WO9219737-A.
 PD 12-NOV-1992.
 PF 27-APR-1992; J00550.
 PR 09-MAY-1991; JP-135950.
 PA (DAIN) DAINIPPON PHARM CO LTD.
 PI Fukui T, Matsuo N, Yamada M, Yamagishi J;
 DR N-PSDB; 030745-46.
 DR N-PSDB; 030745-46.
 PT Prodn. of polypeptide(s) having monocyte chemotactic activity -
 PT using expression plasmids with E. coli elements and specific
 PT E.coli strains
 PS Claim 1; Page 48 + Page 36; 56pp; English.
 CC An expression plasmid, pHM483, for producing MCF(76) consisting
 CC of 76 amino acids was constructed. The prod. can be used for e.g.
 CC treating bacterial infectious diseases.
 SQ Sequence 76 AA;

Query Match 100.0%; Score 84; DB 5; Length 76;
 Best Local Similarity 100.0%; Pred. No. 6.67e-02;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 52 cadpkqkwwq 61
 |||||
 QY 1 CADPKQKWWQ 10

RESULT 9
 ID R87677 standard; protein: 76 AA.
 AC R87677;
 DT 21-FEB-1996 (first entry)
 DE (3-Ala) MCP-1.
 KW monocyte chemotactant protein; MCP-1; mutant; restenosis;
 KW angioplasty.
 OS Homo sapiens.
 FH Key Location/Qualifiers
 FT modified_site 3
 FT disulfide_bond 11..36
 FT disulfide_bond 12..52

PN MO9513295-A1.
 PD 18-MAY-1995.
 PF 07-NOV-1994; U12874.
 PR 12-NOV-1993; US-152301.
 PA (DAND) DANA FARMER CANCER INST INC.
 PI Rollins B, Zhang YJ;
 DR WPI: 95-215051/28.
 PT Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are
 PT capable of inhibiting the monocyte chemo-attractant activity of
 PT endogenous MCP-1 and can be used to treat restenosis
 PS Claim 6; Page 11; 22pp; English.
 CC Monocyte chemotactant protein-1 (MCP-1) derivatives are mutated such
 CC that they inhibit the monocyte chemotactant activity of endogenous
 CC MCP-1, provided that the derivative has not been modified by the
 CC substitution of 28-tyr by leu and/or 30-Arg by Val. Preferred mutations
 CC are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg
 CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
 CC acids 2-8. The present sequence is a specifically claimed human MCP-1
 CC derivative based on the parent protein disclosed in Rollins Molecular
 CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
 CC The peptides can be used to prevent restenosis, e.g. in patients
 CC undergoing coronary artery angioplasty.
 SQ Sequence 76 AA;

Query Match 100.0%; Score 84; DB 14; Length 76;
 Best Local Similarity 100.0%; Pred. No. 6.67e-02;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 52 cadpkqkwwq 61
 |||||
 QY 1 CADPKQKWWQ 10

RESULT 10
 ID W09374 standard; Protein: 76 AA.
 AC W09374;
 DT 21-MAR-1997 (first entry)
 DE Monocyte chemotactic protein 1.
 KW Human; monocyte chemotactant protein; antisense; inhibition;
 KW mononuclear cell; lymphocyte; macrophage; smooth muscle cell;
 KW Vascular restenosis.
 OS Homo sapiens.
 FH Key Location/Qualifiers
 FT misc_difference 1
 FT misc_difference 1 /note= "encoded by codon CAG"
 FT misc_difference 51
 FT misc_difference 51 /note= "encoded by codon AUG"
 FT misc_difference 65
 FT misc_difference 65 /note= "encoded by codon CAC"
 PN US5571713-A.
 PD 05-NOV-1996.
 PF 22-OCT-1992; 965678.
 PR 22-OCT-1992; US-965678.
 PR 27-MAY-1994; US-250958.
 PA (UNMI) UNIV MICHIGAN.
 PI Kunkel SL, Lyle LR, Strieter RM;
 DR WPI: 96-505405/50.
 DR N-PSDB; T48092.
 PT Anti-sense Monocyte Chemotactic Protein-1 oligo:nucleotide(s) -
 PT useful for therapy or diagnosis of restenosis, etc.
 PS Disclosure: Column 13-14; 16pp; English.
 CC This is the amino acid sequence of the human monocyte chemotactant
 CC protein (MCP)-1, a member of the C-C chemokine family. MCP-1 is a potent
 CC stimulator of monocyte chemotaxis and is produced by injured vascular
 CC smooth cells thus attracting monocytes and macrophages which infiltrate
 CC the injured area and release growth factor. This causes proliferation of
 CC the vascular smooth cells resulting in restenosis. The gene sequence can
 CC be used to generate antisense sequences e.g. T48093-7, which can be used
 CC to inhibit in vitro MCP-1 prodn. by mononuclear cells e.g. lymphocytes or
 CC macrophages, or smooth muscle cells, esp. in order to prevent vascular
 CC restenosis.
 SQ Sequence 76 AA;


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Query Match          100.0%; Score 84; DB 20; Length 76;
Best Local Similarity 100.0%; Pred. No. 6.67e-02;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 52 cadpkqkwyg 61
|||||
QY 1 CADPKQKQWQ 10

RESULT 11
ID W1131 standard; protein: 76 AA.
AC W1131:
DE 10-JUN-1997 (first entry)
DE Mature human monocyte chemoattractant protein-1 (MCP-1).
KW MCP-1; mature chemoattractant protein-1; cytokine; interleukin-8;
KW IL-8; neutrophil activating peptide; labelling; imaging; targeting;
KW radionuclide; infection; inflammation; neoplasm; atheromatous lesion;
KW restenosis.
OS Homo sapiens.
PI Key misc_difference 1 Location/Qualifiers
FT US5605671-A. /note="X- any amino acid"
PD 25-FEB-1997.
PR 05-OCT-1992; 956862.
PR 05-OCT-1992; US-956863.
PR 05-OCT-1992; US-956862.
PR 29-APR-1994; US-235659.
PA (MLCW ) MALLINCKRODT MEDICAL INC.
PA (UNMI ) UNIV MICHIGAN.
PI Kunkel SL, Lyle LR, Strieter RM;
DR WPI: 97-153541/14.
PT Radio:labelling neutrophil-activating peptide(s) - for imaging
PT targeted delivery of radioactive agent
PS Example 10: Column 19-20: 15pp; English.
CC W1131 represents mature human monocyte chemoattractant protein-1
CC (MCP-1). MCP-1 was radionuclide labelled and used in a method for
CC imaging a target site in vivo in an animal. Labelled MCP-1 was allowed
CC to accumulate at a target site (having MCP-1 receptors) in the animal
CC and detected so as to image the target site. Any Cys-Cys or Cys-Xaa-Cys
CC chemokine carrying either iodine-123 or iodine-131 can be used in the
CC method. Especially preferred is neutrophil activating peptide-2 (NAP-2)
CC which recognises interleukin-8 receptors and is labelled with
CC technetium-99m, indium-111, copper-62, thulium-186 or rhodium-188.
CC The method can be used for imaging a site of infection, inflammation,
CC neoplasm, atheromatous lesion or restenosis.
SQ Sequence 76 AA;

Query Match          100.0%; Score 84; DB 21; Length 76;
Best Local Similarity 100.0%; Pred. No. 6.67e-02;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 52 cadpkqkwyg 61
|||||
QY 1 CADPKQKQWQ 10

RESULT 12
ID R87675 standard; protein: 76 AA.
AC R87675:
DE 21-FEB-1996 (first entry)
DE (28-ASP) MCP-1.
KW monocyte chemoattractant protein; MCP-1; mutant; restenosis;
KW angioplasty.
OS Homo sapiens.
PI Key Location/Qualifiers
FT modified_site 28 Location/Qualifiers
FT disulfide_bond 11..36 /note="Tyr in the native sequence is replaced by Asp"
FT disulfide_bond 12..52
PD W09513295-A1.
PD 18-MAY-1995.
PD 07-NOV-1994; U12874.

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PR 12-NOV-1993; US-152301.
PA (DAND ) DANA FARBER CANCER INST INC.
PI Rollins B, Zhang YJ;
DR WPI: 95-215051/28.
PT Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are
PT capable of inhibiting the monocyte chemo-attractant activity of
PT endogenous MCP-1 and can be used to treat restenosis
PS Claim 3; Page 11; 22pp; English.
CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
CC that they inhibit the monocyte chemoattractant activity of endogenous
CC MCP-1, provided that the derivative has not been modified by the
CC substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
CC are: (1) substitution of 28-Tyr by aspartate; (2) substitution of 24 Arg
CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
CC derivative based on the parent protein disclosed in Rollins, Molecular
CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
CC The peptides can be used to prevent restenosis, e.g. in patients
CC undergoing coronary artery angioplasty.
SQ Sequence 76 AA;

Query Match          100.0%; Score 84; DB 14; Length 76;
Best Local Similarity 100.0%; Pred. No. 6.67e-02;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 52 cadpkqkwyg 61
|||||
QY 1 CADPKQKQWQ 10

RESULT 13
ID P90292 standard; peptide: 76 AA.
AC P90292:
DR 17-JAN-1990 (first entry)
DE Peptide from human glioma cell line U-105MG.
KW Glioma; leucocyte; chemotaxis; neoplasms.
OS Human.
PI Key Location/Qualifiers
FT modified_site 1 Location/Qualifiers
FT FT /label="OTHER"
FT FT /note="pyroglutamic acid"
PD US7304234-A.
PD 20-JUL-1989.
PR 31-JAN-1989; 030423.
PR 31-JAN-1989; US-304234.
PA (USSH) US Dept. of Health and Human.
PA Yoshimura T; Robinson E; Appella E; Leonard E.
DR WPI: 89-263501/36.
PT New peptide with specific chemotactic activity for monocytes - isolated
PT from glioma or leucocyte cells, useful for treating infections and
PT neoplasms.
PS Disclosure, page 3; 46pp; English.
CC Peptide is derived from glioma cell line U-105MG (ATCC CRL9932) or from
CC leukocytes and has mol. wt. 8400. Used to treat infections and neoplasms.
SQ Sequence 76 AA;

Query Match          100.0%; Score 84; DB 1; Length 76;
Best Local Similarity 100.0%; Pred. No. 6.67e-02;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 52 cadpkqkwyg 61
|||||
QY 1 CADPKQKQWQ 10

RESULT 14
ID R26580 standard; protein: 76 AA.
AC R26580:
DR 28-JAN-1993 (first entry)
DE Sequence of bovine P6 protein.
KW Monocyte chemoattractant; bovine P6-derivative; thrombosis; tumour;
KW inflammation therapy.
OS Bos taurus.

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PN DE4125251-C.
 PD 03-SEP-1992.
 PF 31-JUL-1991; 125251.
 PR 31-JUL-1991; DE-125251.
 PA (SCHÄ-) SCHÄPER & BRUEMMER GMBH & CO KG.
 PI Gramm W, Lins E;
 DR WPI: 92-293438/36.
 PT Drug containing a bovine protein homologous to human MCP-1 - for
 treating inflammation, tumours, thrombosis, and immune reactions,
 PT also for diagnosis
 PS Claim 1; Page 3; 6pp; German.
 CC Poly(+)RNA from bull seminal vesicles was used to prepare a cDNA in
 the expression vector lambda gtl1. 1.5 x 10(5) cDNA clones were
 screened with a polyclonal anti-P6 antiserum of monospecific
 immunoglobulin G and six positives were identified. The insert of a
 suitable cDNA clone, p442, was cloned into pUC18 and sequenced.
 CC p442 encodes the 11,114 bp precursor of P6. It is called Monocyte
 Chemoattractant (bmcp-1), which is a homologue of human (h)MCP-1.
 CC There is 72% overall AA sequence homology to hMCP-1 with the signal
 peptide showing 100% and the central region showing 89% homology.
 SQ Sequence 76 AA;

Query Match 100.0%; Score 84; DB 5; Length 76;
 Best Local Similarity 100.0%; Pred. No. 6.67e-02;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 52 cadpkqkwvq 61
 |||||||||
 QY 1 CADPKQKWVQ 10

RESULT 15

ID R87676 standard; protein; 76 AA.
 AC R87676;
 DT 21-FEB-1996 (first entry)
 CC (24-Arg) MCP-1.
 KW monocyte chemoattractant protein; MCP-1; mutant; restenosis;
 KW angioplasty.
 OS Homo sapiens.
 FH Key
 FT modified_site 24
 FT Location/Qualifiers
 FT /note= "Arg in the native sequence is replaced by Phe"
 FT disulfide bond 11..36
 FT disulfide bond 12..52
 PN W05513295-A1.
 PD 18-MAY-1995.
 PE 07-NOV-1994; U12874.
 PR 12-NOV-1993; US-152301.
 PA (DAND) DANA FARMER CANCER INST INC.
 PI Rollins B, Zhang YJ;
 DR WPI: 95-215051/28.
 PT Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are
 PT capable of inhibiting the monocyte chemo-attractant activity of
 PT endogenous MCP-1 and can be used to treat restenosis
 PS Claim 5; Page 11; 22pp; English.
 CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
 CC that they inhibit the monocyte chemoattractant activity of endogenous
 CC MCP-1, provided that the derivative has not been modified by the
 CC substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
 CC are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg
 CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
 CC acids 2-8. The present sequence is a specifically claimed human MCP-1
 CC derivative based on the patent protein disclosed in Rollins, Molecular
 CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
 CC The peptides can be used to prevent restenosis, e.g. in patients
 CC undergoing coronary artery angioplasty.
 SQ Sequence 76 AA;

Query Match 100.0%; Score 84; DB 14; Length 76;
 Best Local Similarity 100.0%; Pred. No. 6.67e-02;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 52 cadpkqkwvq 61

QY |||||||||
 1 CADPKQKWVQ 10

RESULT 16

ID R86859 standard; protein; 77 AA.
 AC R86859;
 DT 20-MAR-1996 (first entry)
 DE Mature MCP-1.
 KW Antisense; monocyte chemoattractant protein-1; MCP-1;
 KW "C-C" family; chemoattractant cytokine; chemokine; stimulation;
 KW monocyte; chemotaxis; vascular smooth muscle cell; macrophage;
 KW proliferation; restenosis; balloon angioplasty.
 OS Homo sapiens.
 PN W09519167-A1.
 PD 20-JUL-1995.
 PE 13-JAN-1995; U00605.
 PR 14-JAN-1994; US-182917.
 PA (MCM) MALLINCKRODT MEDICAL INC.
 PI Lyle LR, Thomas-Miller B;
 DR WPI: 95-263703/34.
 DR N-PSDB: T03528.
 PT New anti-sense oligo:nucleotide(s) and peptide(s) for inhibiting
 PT restenosis - are directed against C-C family cytokine(s) such as
 PT monocyte chemotactic protein, opt. radio-labelled for therapy or
 PT imaging
 PS Disclosure; Page 5; 50pp; English.
 CC This sequence represents the mature form of monocyte chemotactic
 CC protein-1 (MCP-1). MCP-1 is a member of the "C-C" family of
 CC chemoattractant cytokines or chemokines. It is a potent stimulator
 CC of monocyte chemotaxis and has an extremely high degree of specificity
 CC for this cell type. MCP-1 is produced by injured vascular smooth muscle
 CC cells and attracts the monocytes and macrophages which infiltrate the
 CC area, releasing growth factors and resulting in proliferation of vascular
 CC smooth muscle and restenosis. Nucleic acid molecules which are antisense
 CC to the MCP-1 mRNA may be used to inhibit translation of MCP-1 and so may
 CC be useful for inhibiting vascular restenosis, partic. following balloon
 CC angioplasty or a related process. The molecule may be radiolabelled to
 CC increase its therapeutic effect or for imaging areas of potential
 CC restenosis.
 SQ Sequence 77 AA;

Query Match 100.0%; Score 84; DB 15; Length 77;
 Best Local Similarity 100.0%; Pred. No. 6.67e-02;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 53 cadpkqkwvq 62
 |||||||||
 QY 1 CADPKQKWVQ 10

RESULT 17

ID P95387 standard; protein; 99 AA.
 AC P95387;
 DT 25-JUL-1989 (first entry)
 DE Human monocyte chemo-attractant peptide-1.
 KW Human monocyte chemo-attractant peptide; inflammatory disease; neoplasms.
 OS Homo sapiens.
 FH Key
 FT Location/Qualifiers
 FT protein 24..99
 FT /product=MCP-1
 FT US7330446-A.
 PD 25-JUL-1989;
 PE 30-MAR-1989; 330446.
 PR 30-MAR-1989; US-330446.
 PA (USSH) US Dept. Health and Human.
 PI Yoshimura T, Robinson EA, Appella E, Leonard EJ;
 DR WPI: 89-300683/41.
 DR N-PSDB: N91337.
 PT Human derived monocyte chemo-attractant peptide prods. - obtd. from human
 PT glioma cell line U-105MG or peripheral blood mononuclear leukocytes.
 PS Disclosure; fig 2; 66pp; English.
 CC This is a human-derived monocyte chemo-attractant peptide (MCP-1) sequence

CC MCP-1 exhibits optimal chemotactic activity at a concn. of 1nM and has a
 CC mol. mass of c.a. 8,400 D. MCP-1 can be used for treating infection eg
 CC inflammatory disease, or for the control of neoplasms by accumulation of
 CC monocytes at the site of the infection. The corresp. DNA is obtd. by
 CC chemical synthesis, by screening reverse transcripts of mRNA from
 CC purified blood leukocytes or cell cultures of eg U-373 MG or KMG-5.
 SQ Sequence 99 AA;

Query Match 100.0%; Score 84; DB 2; Length 99;
 Best Local Similarity 100.0%; Pred. No. 6.67e-02;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Db 75 cadpdkxkwq 84
 OY 1 CADPKOKWQ 10

RESULT 18
 ID R70800 standard; Protein: 99 AA.

AC R70800.
 DT 29-AUG-1995 (first entry)
 DE Chemoattractant protein MCP-1.
 KW MCP-1; chemoattractant; heparanase; heparin; heparan sulfate;
 KW arthritis; restenosis; cancer; wound healing.
 OS Homo sapiens.
 PN W09504158-A.
 PD 09-FEB-1995.
 PE 26-JUL-1994; U08207.
 PR 29-JUL-1993; US-099866.
 PR 13-OCT-1993; US-136117.
 PA (UPJO.) UPJOHN CO.
 PI Hoogerwerf AJ, Ledbetter SR;
 DR WPI: 95-082239/11.
 DR N-PSDB: Q85370.
 PT Screening for cps. with anti-heparanase activity - by detecting
 PT inhibition of heparin or heparan sulphate degradation,
 PT potentially useful for treating arthritis, restenosis, cancer.
 PS Claim 13; Page 49; 60pp. English.
 CC Purified heparanases, prepared under reducing conditions and
 CC activated with transglutaminase, are given in R70786-804. Most
 CC are prepared by reverse transcription of mRNA from activated human
 CC leukocytes, then cloning of the cDNA into pVL1392 baculovirus
 CC vector, and expression in Sf9 cells in the presence of reduced
 CC glutathione and dithiothreitol.
 SQ Sequence 99 AA;

Query Match 100.0%; Score 84; DB 13; Length 99;
 Best Local Similarity 100.0%; Pred. No. 6.67e-02;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 75 cadpdkxkwq 84
 OY 1 CADPKOKWQ 10

RESULT 19
 ID R26581 standard; Protein: 99 AA.
 AC R26581.
 DT 28-JAN-1993 (first entry)
 DE Sequence of P6 precursor protein.
 KW Monocyte chemoattractant; bovine P6-derivative; thrombosis; tumour;
 KW inflammation therapy.
 OS Bos taurus.
 FH Key Location/Qualifiers
 FT peptide 1..23
 FT /label= signal
 PN DE4125251-C.
 PD 03-SEP-1992.
 PR 31-JUL-1991; 125251.
 PR 31-JUL-1991; DE-125251.
 PA (SCHA-) SCHAPER & BRUEMNER GMBH & CO KG.
 PI Gramm W, Lins E;
 DR WPI: 92-293438/36.

DR N-PSDB: Q27946.
 PT Drug containing a bovine protein homologous to human MCP-1 - for
 PT treating inflammation, tumours, thrombosis, and immune reactions,
 PT also for diagnosis
 PS Disclosure: Page 4; 6pp; German.
 CC Poly(A)+RNA from bull seminal vesicles was used to prepare a cDNA in
 CC the expression vector lambda gt11. 1.5 x 10(5) cDNA clones were
 CC screened with a polyclonal anti-P6 antiserum of monospecific
 CC immunoglobulin G and six positives were identified. The insert of a
 CC suitable cDNA clone, pH42, was cloned into pUC18 and sequenced.
 CC pH42 encodes the 11,114 Da precursor of P6. It is called Monocyte
 CC Chemoattractant (hMCP-1), which is a homologue of human (h)MCP-1.
 CC There is 72% overall AA sequence homology to hMCP-1 with the signal
 CC peptide showing 100% and the central region showing 88% homology.
 SQ Sequence 99 AA;

Query Match 100.0%; Score 84; DB 5; Length 99;
 Best Local Similarity 100.0%; Pred. No. 6.67e-02;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 75 cadpdkxkwq 84
 OY 1 CADPKOKWQ 10

RESULT 20
 ID R28663 standard; Protein: 99 AA.
 AC R28663.
 DT 24-MAR-1993 (first entry)
 DE MCF
 KW Plasmid; monocyte chemotactic factor; MCF; translation;
 KW termination; terminator; initiation; ribosome binding site;
 KW RBS; promoter; tryptophan; repressor.
 OS Synthetic.
 FH Key Location/Qualifiers
 FT peptide 1..23
 FT /label= sig_peptide
 FT protein 24..99
 FT /label= mat_protein
 PN W09219737-A.
 PD 12-NOV-1992.
 PR 27-APR-1992; J00550.
 PR 09-MAY-1991; JP-135950.
 PA (DAIN) DAINIPPON PHARM CO LTD.
 PI Fukui T, Matsuo N, Yamada M, Yamagishi J;
 DR WPI: 92-398864/48.
 DR N-PSDB: Q30748.
 PT Prodn. of polypeptide(s) having monocyte chemotactic activity -
 PT using expression plasmids with E. coli elements and specific
 PT E.coli strains
 PS Disclosure: Page 43-44; 56pp; English.
 CC An expression plasmid, pHMC076 for producing MCF(76) consisting
 CC of 76 amino acids was constructed. DNA encoding MCF(76) was
 CC prepd. using a recombinant plasmid pMCF7.
 SQ Sequence 99 AA;

Query Match 100.0%; Score 84; DB 5; Length 99;
 Best Local Similarity 100.0%; Pred. No. 6.67e-02;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 75 cadpdkxkwq 84
 OY 1 CADPKOKWQ 10

RESULT 21
 ID R73814 standard; Protein: 99 AA.
 AC R73814.
 DT 05-DEC-1995 (first entry)
 DE Human monocyte chemoattractant factor hMCP-1.
 KW Human monocyte chemoattractant factor; hMCP-1; chemokine; vaccine;
 KW meningitis related homologous antigenic sequence; MRHAS; RV-1;
 KW immunoassay; diagnosis; treatment; prophylactic; bacterial;

KW viral.
 OS Homo sapiens.
 PN W0509232-A.
 PD 06-APR-1995.
 PF 28-SEP-1994; CA0516.
 PR 28-SEP-1993; US-127499.
 PA (SHAR/) SHARMA L. R.
 PI (VALS/) VAN ALSTYNE D.
 PT Sharma LR, Van Alstyne D;
 DR WPI: 95-14743/19.
 PR New peptide(s) and corresp. antibodies for the treatment of
 PT meningitis - the peptide(s) corresp. to homologous antigenic
 PT sites on bacterial and viral agents and on chemokine(s), used for
 PT detecting and preventing meningitis
 PS Claim 47; Fig 8/10; 98pp: English.
 CC R73914 is the chemokine Human monocyte chemoattractant factor hMCP-1.
 CC It contains the meningitis related antigenic sequences (MRHAS) claimed
 CC in R73895 and R73907, which are recognised by a monoclonal antibody
 CC from the hybridoma Rubella virus (RV)-1. The claimed MRHAS peptides
 CC may be used in immunoassays to diagnose the presence of bacterial
 CC and/or viral meningitis agents in a sample, or in prophylactic and
 CC therapeutic meningitis treatments. The peptides may also be used as
 CC vaccines against meningitis.
 CC NB: Identified by matching corresponding MRHAS peptides.
 SO Sequence 99 AA;

Query Match 100.0%; Score 84; DB 14; Length 99;
 Best Local Similarity 100.0%; Pred. No. 6.67e-02;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

DB 75 cadpkxkwg 84
 |||||
 QY 1 CADPKOKWQ 10

RESULT 22
 ID W2675 standard; Protein: 71 AA.
 AC W2675:
 DT 19-MAR-1998 (first entry)
 DE Drol3+ chemokine beta10 or monocyte chemotactic protein 4 variant.
 KW Human; chemokine beta10; Ck beta10; treatment; antagonist;
 KW solid tumour; infection; autoimmune disease; asthma; antibody;
 KW fibrotic disease; psoriasis; neurodegenerative disease;
 KW wound healing; haematopoiesis regulation; gene therapy;
 KW chromosome identification; monocyte chemotactic protein 4;
 KW leukaemia; MCP-4; Drol3+ variant.
 OS Homo sapiens.
 PN W09731098-A1.
 PD 28-AUG-1997.
 PF 23-FEB-1996; U02598.
 PR 23-FEB-1996; WO-U02598.
 PA (HUMA-) HUMAN GENOME SCI INC.
 PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
 PI Parmelee D, White J;
 DR WPI: 97-435153/40.
 PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
 PT protein 4 - useful to treat tumours, autoimmune disease, infection,
 PT asthma and fibrosis
 PS Example 11; Fig 5; 83pp: English.
 CC The present sequence is human chemokine beta10 (Ck beta10) or
 CC monocyte chemotactic protein 4 (MCP-4) Drol3+ variant, which can
 CC be used to treat patients deficient in Ck beta10, while a Ck beta10
 CC antagonist can be used to reduce excessive levels of Ck beta10. Ck
 CC beta10 can be used to treat leukaemia, solid tumours, chronic or
 CC opportunistic infections, autoimmune diseases, asthma, fibrotic
 CC diseases, psoriasis and neurodegenerative diseases. It also
 CC promotes wound healing, regulates haematopoiesis and generates
 CC antibodies. Labelled Ck beta10 can be used to identify its cognate
 CC receptor, while cells expressing the receptor can be used to screen
 CC compounds for (ant)agonist activity. The antagonist can be used to
 CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
 CC infectious diseases, allergies, sarcoidosis, hyper-eosinophilic
 CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic

CC syndrome, lung inflammation and atherosclerosis. Ck beta10 cDNA can
 CC be used to isolate genes encoding similar peptides, in gene therapy
 CC and for chromosome identification.
 SQ Sequence 71 AA;

Query Match 95.2%; Score 80; DB 27; Length 71;
 Best Local Similarity 90.0%; Pred. No. 1.78e-01;
 Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

DB 47 cadpkxkwg 56
 |||||
 QY 1 CADPKOKWQ 10

RESULT 23
 ID W2673 standard; Protein: 75 AA.
 AC W2673:
 DT 19-MAR-1998 (first entry)
 DE Bac 3 chemokine beta10 or monocyte chemotactic protein 4 variant.
 KW Human; chemokine beta10; Ck beta10; treatment; antagonist;
 KW solid tumour; infection; autoimmune disease; asthma; antibody;
 KW fibrotic disease; psoriasis; neurodegenerative disease;
 KW wound healing; haematopoiesis regulation; gene therapy;
 KW chromosome identification; monocyte chemotactic protein 4;
 KW leukaemia; MCP-4; Bac 3 variant.
 OS Homo sapiens.
 PN W09731098-A1.
 PD 28-AUG-1997.
 PF 23-FEB-1996; U02598.
 PR 23-FEB-1996; WO-U02598.
 PA (HUMA-) HUMAN GENOME SCI INC.
 PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
 PI Parmelee D, White J;
 DR WPI: 97-435153/40.
 PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
 PT protein 4 - useful to treat tumours, autoimmune disease, infection,
 PT asthma and fibrosis
 PS Example 11; Fig 5; 83pp: English.
 CC The present sequence is human chemokine beta10 (Ck beta10) or
 CC monocyte chemotactic protein 4 (MCP-4) Bac 3 variant, which can be
 CC used to treat patients deficient in Ck beta10, while a Ck beta10
 CC antagonist can be used to reduce excessive levels of Ck beta10. Ck
 CC beta10 can be used to treat leukaemia, solid tumours, chronic or
 CC opportunistic infections, autoimmune diseases, asthma, fibrotic
 CC diseases, psoriasis and neurodegenerative diseases. It also
 CC promotes wound healing, regulates haematopoiesis and generates
 CC antibodies. Labelled Ck beta10 can be used to identify its cognate
 CC receptor, while cells expressing the receptor can be used to screen
 CC compounds for (ant)agonist activity. The antagonist can be used to
 CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
 CC infectious diseases, allergies, sarcoidosis, hyper-eosinophilic
 CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
 CC syndrome, lung inflammation and atherosclerosis. Ck beta10 cDNA can
 CC be used to isolate genes encoding similar peptides, in gene therapy
 CC and for chromosome identification.
 SQ Sequence 75 AA;

Query Match 95.2%; Score 80; DB 27; Length 75;
 Best Local Similarity 90.0%; Pred. No. 1.78e-01;
 Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

DB 51 cadpkxkwg 60
 |||||
 QY 1 CADPKOKWQ 10

RESULT 24
 ID W2672 standard; Protein: 77 AA.
 AC W2672:
 DT 19-MAR-1998 (first entry)
 DE Bac 2 chemokine beta10 or monocyte chemotactic protein 4 variant.
 KW Human; chemokine beta10; Ck beta10; treatment; antagonist;
 KW solid tumour; infection; autoimmune disease; asthma; antibody;

KW fibrotic disease; psoriasis; neurodegenerative disease;
 KW wound healing; haematopoiesis regulation; gene therapy;
 KW leukaemia; MCP-4; Bac 2 variant.
 OS Homo sapiens.
 PN WO9731098-A1.
 PD 28-AUG-1997.
 PF 23-FEB-1996; WO02598.
 PR 23-FEB-1996; WO-02598.
 PA (HUMA-) HUMAN GENOME SCI INC.
 PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
 PI Parmelee D, White J;
 DR MPI: 97-435153/40.
 PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
 protein 4 - useful to treat tumours, autoimmune disease, infection,
 PT asthma and fibrosis
 PS Example 11: Fig 5; 83pp; English.
 CC The present sequence is human chemokine beta10 (Ck beta10) or
 CC monocyte chemotactic protein 4 (MCP-4) Bac 2 variant, which can be
 CC used to treat patients deficient in Ck beta10, while a Ck beta10
 CC antagonist can be used to reduce excessive levels of Ck beta10. Ck
 CC beta10 can be used to treat leukaemia, solid tumours, chronic or
 CC opportunistic infections, autoimmune diseases, asthma, fibrotic
 CC diseases, psoriasis and neurodegenerative diseases. It also
 CC promotes wound healing, regulates haematopoiesis and generates
 CC antibodies. Labelled Ck beta10 can be used to identify its cognate
 CC receptor, while cells expressing the receptor can be used to screen
 CC compounds for (ant)agonist activity. The antagonist can be used to
 CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
 CC infectious diseases, allergies, sarcoidosis, hyper-eosinophilic
 CC bone marrow failure, silicosis, prostaglandin dependent fever and
 CC syndrome, lung inflammation and atherosclerosis. Ck beta10 cDNA can
 CC be used to isolate genes encoding similar peptides, in gene therapy
 CC and for chromosome identification.
 SQ Sequence 77 AA:

Query Match 95.2%; Score 80; DB 27; Length 77;
 Best Local Similarity 90.0%; Pred. No. 1,78e-01;
 Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 53 cadpkekwyg 62
 |||||:||||
 QY 1 CADPKQKWYQ 10

RESULT 25
 ID W22674 standard; Protein; 79 AA.
 AC W22674:
 DT 19-MAR-1998 (first entry)
 DE Droll/2 chemokine beta10 or monocyte chemotactic protein 4 variant.
 KW Human; chemokine beta10; Ck beta10; treatment; antagonist;
 KW solid tumour; infection; autoimmune disease; asthma; antibody;
 KW fibrotic disease; psoriasis; neurodegenerative disease;
 KW wound healing; haematopoiesis regulation; gene therapy;
 KW chromosome identification; monocyte chemotactic protein 4;
 KW leukaemia; MCP-4; Droll/2 variant.
 OS Homo sapiens.
 PN WO9731098-A1.
 PD 28-AUG-1997.
 PF 23-FEB-1996; WO02598.
 PR 23-FEB-1996; WO-02598.
 PA (HUMA-) HUMAN GENOME SCI INC.
 PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
 PI Parmelee D, White J;
 DR MPI: 97-435153/40.
 PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
 protein 4 - useful to treat tumours, autoimmune disease, infection,
 PT asthma and fibrosis
 PS Example 11: Fig 5; 83pp; English.
 CC The present sequence is human chemokine beta10 (Ck beta10) or
 CC monocyte chemotactic protein 4 (MCP-4) Droll/2 variant, which can
 CC be used to treat patients deficient in Ck beta10, while a Ck beta10
 CC antagonist can be used to reduce excessive levels of Ck beta10. Ck

CC beta10 can be used to treat leukaemia, solid tumours, chronic or
 CC opportunistic infections, autoimmune diseases, asthma, fibrotic
 CC diseases, psoriasis and neurodegenerative diseases. It also
 CC promotes wound healing, regulates haematopoiesis and generates
 CC antibodies. Labelled Ck beta10 can be used to identify its cognate
 CC receptor, while cells expressing the receptor can be used to screen
 CC compounds for (ant)agonist activity. The antagonist can be used to
 CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
 CC infectious diseases, allergies, sarcoidosis, hyper-eosinophilic
 CC bone marrow failure, silicosis, prostaglandin dependent fever and
 CC syndrome, lung inflammation and atherosclerosis. Ck beta10 cDNA can
 CC be used to isolate genes encoding similar peptides, in gene therapy
 CC and for chromosome identification.
 SQ Sequence 79 AA:

Query Match 95.2%; Score 80; DB 27; Length 79;
 Best Local Similarity 90.0%; Pred. No. 1,78e-01;
 Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 55 cadpkekwyg 64
 |||||:||||
 QY 1 CADPKQKWYQ 10

RESULT 26
 ID W22671 standard; Protein; 82 AA.
 AC W22671:
 DT 19-MAR-1998 (first entry)
 DE Bac 1 chemokine beta10 or monocyte chemotactic protein 4 variant.
 KW Human; chemokine beta10; Ck beta10; treatment; antagonist;
 KW solid tumour; infection; autoimmune disease; asthma; antibody;
 KW fibrotic disease; psoriasis; neurodegenerative disease;
 KW wound healing; haematopoiesis regulation; gene therapy;
 KW chromosome identification; monocyte chemotactic protein 4;
 KW leukaemia; MCP-4; Bac 1 variant.
 OS Homo sapiens.
 PN WO9731098-A1.
 PD 28-AUG-1997.
 PF 23-FEB-1996; WO02598.
 PR 23-FEB-1996; WO-02598.
 PA (HUMA-) HUMAN GENOME SCI INC.
 PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
 PI Parmelee D, White J;
 DR MPI: 97-435153/40.
 PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
 protein 4 - useful to treat tumours, autoimmune disease, infection,
 PT asthma and fibrosis
 PS Example 11: Fig 5; 83pp; English.
 CC The present sequence is human chemokine beta10 (Ck beta10) or
 CC monocyte chemotactic protein 4 (MCP-4) Bac 1 variant, which can be
 CC used to treat patients deficient in Ck beta10, while a Ck beta10
 CC antagonist can be used to reduce excessive levels of Ck beta10. Ck
 CC beta10 can be used to treat leukaemia, solid tumours, chronic or
 CC opportunistic infections, autoimmune diseases, asthma, fibrotic
 CC diseases, psoriasis and neurodegenerative diseases. It also
 CC promotes wound healing, regulates haematopoiesis and generates
 CC antibodies. Labelled Ck beta10 can be used to identify its cognate
 CC receptor, while cells expressing the receptor can be used to screen
 CC compounds for (ant)agonist activity. The antagonist can be used to
 CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
 CC infectious diseases, allergies, sarcoidosis, hyper-eosinophilic
 CC bone marrow failure, silicosis, prostaglandin dependent fever and
 CC syndrome, lung inflammation and atherosclerosis. Ck beta10 cDNA can
 CC be used to isolate genes encoding similar peptides, in gene therapy
 CC and for chromosome identification.
 SQ Sequence 82 AA:

Query Match 95.2%; Score 80; DB 27; Length 82;
 Best Local Similarity 90.0%; Pred. No. 1,78e-01;
 Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 58 cadpkekwyg 67
 |||||:||||

OY 1 CADPKOKWQ 10

RESULT 27

ID W17665 standard; peptide: 82 AA.

AC W17665:

DE 16-DEC-1997 (first entry)

DM Stem cell mobilising chemokine CXbeta-10.

KM Haematopoietic cell; parasitic infection; colony stimulating factor; haematoregulator; immune response; bacterial infection; transplant; wound healing; bone marrow; immunosuppression; regeneration;

KW neoplastic disease; viral disease; gene therapy; cytotoxic drug.

OS Synthetic.

PN WO9713594-A1.

PD 01-MAY-1997.

PF 23-OCT-1996; U16959.

PR 24-OCT-1995; US-006051.

PA (SMK) SMITHKLINE BEECHAM CORP.

PI Kreider BL, Li H, Pelus L, White JR;

PI MPI: 97-258956/23.

DR Ten new chemokine(s) able to mobilise stem cells - used where

PT increased levels of haematopoietic cells are required, e.g. to

PI increase resistance to infection

PS Claim 7: Page 11-12: 24pp: English.

CC The present sequence represents a chemokine, CXbeta-10, which is capable

CC of mobilising stem cells. The chemokine can be used therapeutically to

CC improve stem cell mobilisation, optionally together with a colony

CC stimulating factor or other haematoregulatory agent. It can be used

CC wherever an increased level of haematopoietic cells is needed, e.g. to

CC increase the immune response to chronic infection (particularly

CC bacterial or parasitic) to promote wound healing, in (transplant)

CC patients with reduced bone marrow function as a result of

CC immunosuppressive treatment or disease, and to provide more rapid

CC regeneration of bone marrow after treatment for neoplastic or viral

CC diseases. The induced stem cells may be harvested for subsequent return

CC to the patient, optionally after they have been genetically manipulated

CC to deliver a selected gene product (gene therapy). The cells may be

CC co-administered with a cytotoxic drug.

CC Sequence 82 AA:

QY

Query Match 95.2%; Score 80; DB 24; Length 82;

Best Local Similarity 90.0%; Pred. No. 1.78e-01;

Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

DB 58 cadpkexwq 67

||||:||||

QY 1 CADPKOKWQ 10

RESULT 28

ID W30191 standard; Protein: 98 AA.

AC W30191:

DE 21-MAY-1998 (first entry)

DM Monocyte chemotactic protein 5.

KW Monocyte chemotactic protein 5; MCP-5; human; macrophage; chemokine; inhibitor; antiinflammatory; atherosclerosis;

KM Croun's disease; arthritis; angiogenesis; tumour; metastasis;

KW therapy; diagnosis; medical imaging.

OS Homo sapiens.

PN Key

FT Peptide 1.23 Location/Qualifiers

FT Protein 24..98 /label= Sig_peptide

FT /label= Mat_protein

FT /note= "(Claim 4)"

PN WO9735982-A2.

PD 02-OCT-1997.

PF 26-MAR-1997; U04898.

PR 27-MAR-1996; US-622851.

PA (ICOS) ICOS CORP.

PI Godiska R, Gray PW;

PI MPI: 97-489645/45.

DR N-PSDB: T90880.

PT Polynucleotide encoding monocyte chemotactic protein-5 - useful in

PT treatment of e.g. inflammation, atherosclerosis, angiogenesis and

PT tumours

PS Claim 1: Page 36-37: 47pp: English.

CC This polypeptide comprises human macrophage-derived

CC monocyte chemotactic protein-5 (MCP-5), a novel C-C chemokine.

CC Its amino acid sequence was deduced from a cDNA clone (see

CC T90880 and T90883) isolated from a human macrophage cDNA

CC library. A claimed method for producing MCP-5 comprises

CC culturing a host cell that is stably transformed or transfected

CC with MCP-5 polynucleotide. Also claimed is a hybridoma that

CC produces a monoclonal antibody (MAb) that is specifically

CC reactive with the mature MCP-5. MCP-5 (or its analogues and

CC fragments) is used to enhance the immune response in cases of

CC wounds or infections, while its inhibitors (e.g. the MAb) are

CC useful as anti-inflammatory in cases of e.g. arthritis and

CC Crohn's disease, also for treatment of atherosclerosis,

CC angiogenesis and tumour growth (or metastasis). The MCP-5

CC inhibitors can possibly also be used to reduce the damaging effects

CC of chemo- and radio-therapy on myeloid progenitor cells, and to

CC inhibit replication of HIV. MCP-5 can also be used to identify

CC its cognate receptor, while MCP-5 peptides (or the analogues or

CC receptors) are used to modulate MCP-5 activity and to identify

CC MCP-5 agonists and antagonists.

CC Sequence 98 AA:

QY

Query Match 95.2%; Score 80; DB 28; Length 98;

Best Local Similarity 90.0%; Pred. No. 1.78e-01;

Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

DB 74 cadpkexwq 83

||||:||||

QY 1 CADPKOKWQ 10

RESULT 29

ID R93087 standard; Protein: 98 AA.

AC R93087:

DE 27-AUG-1996 (first entry)

DM Human chemokine beta-10.

KW Chemokine beta-10; chemokine beta-4; CX beta-10; CX beta-4;

KW cytokine; leukaemia; tumour; cancer; autoimmune disease; psoriasis;

KW asthma; allergy; wound healing; diagnosis; therapy.

OS Homo sapiens.

PN Key

FT Peptide 1.23 Location/Qualifiers

FT Protein 25..98 /label= Sig_peptide

FT /label= Mat_protein

PN WO9605856-A1.

PD 29-FEB-1996.

PF 23-AUG-1994; U09484.

PR 23-AUG-1994; WO-U09484.

PR 08-SEP-1994; ZA-006936.

PA (HUMA-) HUMAN GENOME SCI INC.

PI Adams MD, Li H;

PI MPI: 96-151145/15.

DR N-PSDB: T17050.

PT New chemokine CK(beta)-4 and -10 genes and polypeptide(s) - useful

PT to treat, e.g. leukaemia, solid tumours and auto-immune diseases

PS Claim 19: Fig 2, 53pp: English.

CC A novel human chemokine, CX beta-10 (R93087), was identified as

CC the product of a cDNA clone (T17050) isolated from a 9-wk early

CC human tissue cDNA library. The protein is structurally related to

CC the chemokine family. Recombinant CX beta-10 can be obtained by

CC incorporating the cDNA into a vector and expression of the protein

CC in e.g. E. coli, COS or Sf9 cells. CX beta-10 can be used to treat

CC solid tumours, chronic infections, psoriasis, asthma and allergy,

CC to regulate haematopoiesis, promote wound healing, and to inhibit

CC angiogenesis. It can also be used to inhibit bone marrow stem cell

CC colony formn. during chemotherapy.

CC Sequence 98 AA:

Query Match 95.2%; Score 80; DB 17; Length 98;

Best Local Similarity 90.0%; Pred. No. 1.78e-01; Mismatches 0; Gaps 0;

Db 74 cadpkexwvq 83
 |||||:||||
 Oy 1 CADPKOKWVO 10

RESULT 30

ID W22670 standard; Protein; 98 AA.

AC W22670;

DI 19-MAR-1998 (first entry)

DE Human chemokine beta10 or monocyte chemotactic protein 4.

KW Human; chemokine beta10; CK beta10; treatment; antagonist;

KW solid tumour; infection; autoimmune disease; asthma; antibody;

KW fibrotic disease; psoriasis; neurodegenerative disease;

KW wound healing; haematopoiesis regulation; gene therapy;

KW chromosome identification; monocyte chemotactic protein 4;

KW leukaemia: MCP-4.

OS Homo sapiens.

FI Key

FI Peptide

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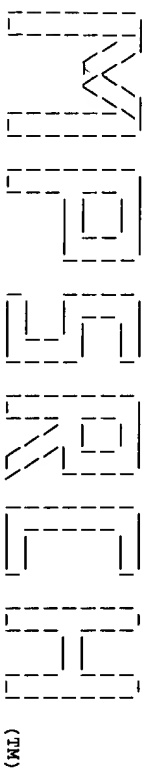
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(TM)

Release 3.1A John F. Collins, Biocomputing Research Unit.
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Masrch_pp protein - protein database search, using Smith-Waterman algorithm

Run on: Thu Apr 1 07:27:19 1999; MasPar time 3.21 Seconds
116.648 Million cell updates/sec

Tabular output not generated.

Title: >US-08-927-939-7
Description: (1-10) from US08927939.pep
Perfect Score: 84
Sequence: 1 CADPKQKWVQ 10

Scoring table: PAM 150
Gap 15

Searched: 116738 segs, 37463448 residues

Post-Processing: Minimum Match 0%
Listing first 100 summaries

Database: p1r58
1:p1r1 2:p1r2 3:p1r3 4:p1r4

Statistics: Mean 23.912; Variance 35.812; scale 0.668

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description	Pred. No.
1	84	100.0	99	2	A60299	8,66e-06
2	84	100.0	99	2	A39296	8,66e-06
3	84	100.0	99	2	JC2336	8,66e-06
4	84	100.0	125	2	I46857	8,66e-06
5	83	98.8	99	2	JC2136	1,42e-05
6	77	91.7	96	2	JC2136	1,42e-05
7	77	91.7	96	2	I48099	2,60e-04
8	77	91.7	96	2	JC2478	2,60e-04
9	77	91.7	99	2	JC2417	2,60e-04
10	77	91.7	109	2	A5678	2,60e-04
11	74	88.1	120	2	I48147	2,60e-04
12	73	86.9	92	2	JC4912	1,08e-03
13	73	86.9	92	2	I52322	1,73e-03
14	73	86.9	95	2	JN0841	1,73e-03
15	73	86.9	101	2	I4697	1,73e-03
16	73	86.9	101	2	I4697	1,73e-03
17	73	86.9	103	2	A44253	1,73e-03
18	73	86.9	103	2	A53096	1,73e-03
19	71	84.5	99	2	JC5295	4,39e-03
20	70	82.3	101	2	I48148	6,96e-03
21	69	83.1	148	2	A30209	1,10e-02
22	67	79.8	89	2	I53416	2,73e-02
23	67	79.8	89	2	A53497	2,73e-02

24	79.8	93	2	G01540	cytokine SDF-1-beta -	2.73e-02
25	79.8	93	2	I81182	cytokine - mouse	2.73e-02
26	79.8	99	2	A37034	interleukin-8 precurs	2.73e-02
27	78.6	91	1	A46539	monocyte chemoattract	4.28e-02
28	78.6	92	2	A32393	macrophage inflammatory	4.28e-02
29	76.2	50	2	G60407	monocyte adherence-in	1.04e-01
30	76.2	92	1	A31767	macrophage inflammatory	1.04e-01
31	76.2	92	2	A30574	macrophage inflammatory	1.04e-01
32	76.2	93	2	B35673	LD78-beta protein pre	1.04e-01
33	75.0	148	2	S07723	immune activation gen	1.62e-01
34	72.6	92	2	I46730	immune activation gen	3.86e-01
35	72.6	144	1	ETMUL	lymphotactin precursor	3.86e-01
36	71.4	91	1	A28815	monocyte chemoattract	5.93e-01
37	71.4	117	1	S57175	lymphotactin precursor	5.93e-01
38	70.2	130	2	JE0177	lymphocyte and monocy	9.07e-01
39	70.2	187	2	C71317	hypothetical protein	9.07e-01
40	69.0	1053	2	D71466	probable ribonuclease	1.38e+00
41	67.9	97	2	A48093	monocytic cytokine FI	2.10e+00
42	67.9	192	2	E71437	probable resistance g	2.10e+00
43	66.7	114	1	ETMUL	lymphotactin precursor	3.17e+00
44	65.5	145	2	S76877	hypothetical protein	4.77e+00
45	64.3	460	2	E64019	hypothetical protein	7.15e+00
46	63.1	140	1	MMVZM3	Hm3 protein - sheep p	1.07e+01
47	63.1	1422	2	B71437	probable resistance g	1.07e+01
48	61.9	92	2	C30552	macrophage inflammatory	1.58e+01
49	61.9	103	2	I50417	RSV-induced protein -	1.58e+01
50	61.9	103	2	A26736	transformation-induce	1.58e+01
51	61.9	108	2	G70567	N-terminus of IS6110	1.58e+01
52	61.9	108	2	A60340	hypothetical protein	1.58e+01
53	61.9	1872	2	JC4976	plexin 3 - mouse	1.58e+01
54	60.7	116	2	I49555	gene C10 protein - mo	2.34e+01
55	60.7	176	2	G65065	hypothetical protein	2.34e+01
56	60.7	188	2	JH0661	amine dehydrogenase (2.34e+01
57	60.7	389	2	E71113	probable nonspecific	2.34e+01
58	60.7	627	2	C69637	DNA gyrase-like prote	2.34e+01
59	60.7	760	2	S55520	Chitin synthetase I -	2.34e+01
60	60.7	825	2	S75173	hypothetical protein	2.34e+01
61	60.7	1038	2	A71437	probable resistance g	2.34e+01
62	59.5	85	2	C35387	regulatory protein ko	3.43e+01
63	59.5	92	2	S24236	TCA3 protein - mouse	3.43e+01
64	59.5	178	2	F69804	hypothetical protein	3.43e+01
65	59.5	276	2	JH0245	2-hydroxy-6-oxohepta-	3.43e+01
66	59.5	283	2	SI0773	2-hydroxymuconic semi	3.43e+01
67	59.5	332	2	H69494	pyruvate formate-lyas	3.43e+01
68	59.5	467	2	S61141	probable membrane pro	3.43e+01
69	59.5	467	2	S64450	probable membrane pro	3.43e+01
70	59.5	491	2	S48827	1-aminocyclopropane-1	3.43e+01
71	59.5	828	2	S52393	beta-galactosidase (E	3.43e+01
72	58.3	251	2	S20455	pqqc protein - Klebsi	5.02e+01
73	58.3	273	2	B31479	env polyprotein - K1ebsi	5.02e+01
74	58.3	334	2	S43424	zipper containing pro	5.02e+01
75	58.3	376	2	B64751	YKfC protein - Escher	5.02e+01
76	58.3	477	2	E71436	hypothetical protein	5.02e+01
77	58.3	532	1	IFBV	beta-fructofuranosida	5.02e+01
78	58.3	532	2	S27373	beta-fructofuranosida	5.02e+01
79	58.3	573	2	C64611	hypothetical protein	5.02e+01
80	58.3	582	2	S53814	DEAD box protein - sl	5.02e+01
81	58.3	662	2	A25982	env polyprotein - fel	5.02e+01
82	58.3	662	1	VCWVLR	env polyprotein - fel	5.02e+01
83	58.3	662	1	VCWVLR	env polyprotein - fel	5.02e+01
84	58.3	668	1	VCWVLR	env polyprotein - fel	5.02e+01
85	58.3	766	1	G71437	probable resistance g	5.02e+01
86	58.3	1032	2	A57514	RNA helicase HELL17 -	5.02e+01
87	58.3	1256	2	C71436	probable resistance g	5.02e+01
88	58.3	1675	1	LRHR	clathrin heavy chain	5.02e+01
89	58.3	2467	2	D71437	probable resistance g	5.02e+01
90	58.3	26926	1	I38344	titin, cardiac muscle	5.02e+01
91	57.1	281	1	A47629	cell surface glycopro	7.30e+01
92	57.1	353	2	B53520	class I histocompatib	7.30e+01
93	57.1	356	2	A53250	class I histocompatib	7.30e+01
94	57.1	366	2	J50262	class I histocompatib	7.30e+01
95	57.1	505	2	S38534	cytochrome P450 7A2	7.30e+01
96	57.1	534	1	VCWVSR	env polyprotein - fel	7.30e+01

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97 48 57.1 609 1 TYWGC protein-tyrosine kinase 7.30e+01
98 48 57.1 815 1 PHECGG glycogen phosphorylase 7.30e+01
99 48 57.1 820 2 I48347 protein-tyrosine kinase 7.30e+01
100 48 57.1 832 2 S41889 beta-galactosidase (E) 7.30e+01

ALIGNMENTS

RESULT 1
ENTRY 1 A60299 #type complete
TITLE monocyte chemoattractant protein 1 precursor - human
ALTERNATE_NAMES MCP-1; glioma-derived monocyte chemoattractant factor 1; MCAF; MCP-1; monocyte chemoattractant factor 1; monocyte secretory protein; tumor-derived chemotactic factor
CONTAINS glioma-derived chemotactic factor 2 (GDCF-2)
ORGANISM #journal.name Homo sapiens #common_name man
DATE 20-Feb-1993 #sequence_revision 20-Feb-1993 #text_change 20-Mar-1998

ACCESSIONS
A35474; A33476; S03339; I51841; A60299; A32300; A32396;
A34561; I57488; JCI1096

REFERENCE
#authors Yoshimura, T.; Yuhki, N.; Moore, S.K.; Appella, E.; Lerman, M.I.; Leonard, E.J.
#journal FBS Lett. (1989) 244:487-493
#title Human monocyte chemoattractant protein-1 (MCP-1). Full-length cDNA cloning, expression in mitogen-stimulated blood mononuclear leukocytes, and sequence similarity to mouse competence gene JE.
#cross-references MUID:89153605
#accession S03339
#status not compared with conceptual translation
#molecule_type mRNA
#residues 1-99 #label YOS
#cross-references GB:X14768; NID:94513; PID:934514
#experimental_source glioma cell line U-105MC
REFERENCE
#authors Yoshimura, T.; Leonard, E.J.
#journal Adv. Exp. Med. Biol. (1991) 305:47-56
#title Human monocyte chemoattractant protein-1 (MCP-1).
#cross-references MUID:92095166
#accession I51841
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-99 #label YO2
#cross-references GB:571513; NID:9240867; PID:9240868
REFERENCE
#authors Bottazzi, B.; Colotta, F.; Sica, A.; Noddi, N.; Mantovani, A.
#journal Int. J. Cancer (1990) 45:795-797
#title A chemoattractant expressed in human sarcoma cells (tumor derived chemotactic factor, TDCF) is identical to monocyte chemoattractant protein-1/monocyte chemotactic and

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#accession A60299 activating factor (MCP-1/MCAF).
#status not compared with conceptual translation
#molecule_type mRNA
#residues 1-99 #label BOT
REFERENCE
#authors Furutani, Y.; Nomura, H.; Notake, M.; Oyama, Y.; Fukui, T.; Yamada, M.; Larsen, C.G.; Oppenheim, J.J.; Matsushima, K.; Blochem, Biophys. Res. Commun. (1989) 159:249-255
#title Cloning and sequencing of the cDNA for human monocyte chemoattractant and activating factor (MCAF).
#cross-references MUID:89165862
#accession A32300
#status not compared with conceptual translation
#molecule_type mRNA
#residues 1-99 #label FUR
#cross-references GB:M24545; NID:9187434; PID:9307163
REFERENCE
#authors Robinson, E.A.; Yoshimura, T.; Leonard, E.J.; Tanaka, S.; Griffin, P.R.; Shadnowitz, J.; Hunt, D.F.; Appella, E.; Proc. Natl. Acad. Sci. U.S.A. (1989) 86:1850-1854
#title Complete amino acid sequence of a human monocyte chemoattractant, a putative mediator of cellular immune reactions.
#cross-references MUID:89184525
#accession A32396
#molecule_type protein
#residues 1-99 #label ROB
REFERENCE
#authors Decosse, B.; Conings, R.; Lenaerts, J.P.; Billiau, A.; Van Damme, J.
#journal Biochem. Biophys. Res. Commun. (1990) 167:904-909
#title Identification of the monocyte chemoattractant protein from human osteosarcoma cells and monocytes: detection of a novel N-terminally processed form.
#cross-references MUID:90211336
#accession A34561
#molecule_type protein
#residues 29-33, 'XX', 36-52; 82-92 #label DEC
REFERENCE
#authors Li, Y.S.; Shyy, Y.J.; Wright, J.G.; Valente, A.J.; Cornhill, J.F.; Kolattukudy, P.E.
#journal Mol. Cell. Biochem. (1993) 126:61-68
#title The expression of monocyte chemoattractant protein (MCP-1) in human vascular endothelium in vitro and in vivo.
#cross-references MUID:94150478
#accession I57488
#status translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-99 #label LIY
#cross-references GB:S69738; NID:9545464; PID:9545465
REFERENCE
#authors Ye, Q.N.; Su, G.F.; Yuan, Y.; Huang, C.F.; Chinese J. Microbiol. Immunol. (1994) 14:29-32
#title The PCR cloning and sequencing of human monocyte chemoattractant protein-1 (MCP-1) gene.
#accession JCI1096
#molecule_type mRNA
#residues 24-28, 'Q', 30-99 #label YEO
GENETICS
#gene GDB:SCYA2
#cross-references GDB:125279; OMIM:156105
#map_position 17q11.2-17q12
CLASSIFICATION
#superfamily macrophage inflammatory protein
KEYWORDS
cytokine; glycoprotein; inflammation; pyroglyutamic acid
FEATURE
1-23
24-99
29-99
24
#domain signal sequence #status predicted #label SIG\
#product monocyte chemoattractant protein 1 #status experimental #label MAT\
#status experimental #label MAT2\
#modified site pyroglutamic acid (Gln) (in mature form) #status experimental\

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37          #binding_site carbohydrate (Asn) (covalent) #status
SUMMARY      #length 99 #molecular-weight 11025 #checksum 7984
Query Match      100.0%; Score 84; DB 2; Length 99;
Best Local Similarity 100.0%; Pred. No. 8,66e-06;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db      75 CADPROKQWQ 84
      |||
OY      1 CADPROKQWQ 10

RESULT      2
ENTRY      A39296      #type complete
TITLE      monocytic chemoattractant protein 1 precursor - bovine
ALTERNATE_NAMES
ORGANISM    #formal_name Bos primigenius taurus #common_name cattle
DATE        03-Aug-1992 #sequence_revision 03-Aug-1992 #text_change
31-Oct-1997
ACCESSIONS  A39296; B39296
REFERENCE    Wempe, F.; Henschen, A.; Schelt, K.H.
#authors     DNA Cell Biol. (1991) 10:671-679
#journal     Gene expression and cDNA cloning identified a major basic
#title       protein constituent of bovine seminal plasma as bovine
              monocytic-chemoattractant protein-1 (MCP-1).
              #cross-references MUID:92096117
#accession   A39296
#molecule_type mRNA
#residues    1-99 #label WEM
#cross-references GB:M84602; GB:M85264; NID:g163394; PID:g163395
#accession   B39296
#molecule_type protein
#residues    50-68,'X','70-74','X','76 #label WE2
#experimental_source seminal vesicle
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS      glycoprotein
FEATURE
1-23          #domain signal sequence #status predicted #label SIG\
24-99         #product monocytic chemoattractant protein 1 #status
94            #binding_site carbohydrate (Asn) (covalent) #status
              predicted
SUMMARY      #length 99 #molecular-weight 11114 #checksum 9401
Query Match      100.0%; Score 84; DB 2; Length 99;
Best Local Similarity 100.0%; Pred. No. 8,66e-06;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db      75 CADPROKQWQ 84
      |||
OY      1 CADPROKQWQ 10

RESULT      3
ENTRY      JC2336      #type complete
TITLE      monocytic chemoattractant protein-1 - bovine
ORGANISM    #formal_name Bos primigenius indicus #common_name zebu cattle
DATE        20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change
03-May-1996
ACCESSIONS  JC2336
REFERENCE    Wempe, F.; Kuhlmann, J.K.; Schelt, K.H.
#authors     Biochem. Biophys. Res. Commun. (1994) 202:1272-1279
#journal     Characterization of the bovine monocytic chemoattractant
#title       protein-1 gene.
#accession   JC2336
#molecule_type protein
#residues    1-99 #label WEM
GENETICS     MCP-1
#gene        26/1; 65/2
#introns
```

```
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY      #length 99 #molecular-weight 11114 #checksum 9401
Query Match      100.0%; Score 84; DB 2; Length 99;
Best Local Similarity 100.0%; Pred. No. 8,66e-06;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db      75 CADPROKQWQ 84
      |||
OY      1 CADPROKQWQ 10

RESULT      4
ENTRY      I46857      #type complete
TITLE      monocytic chemoattractant protein-1 - rabbit
ORGANISM    #formal_name Oryctolagus cuniculus #common_name domestic
              rabbit
DATE        14-Feb-1997 #sequence_revision 14-Feb-1997 #text_change
09-May-1997
ACCESSIONS  I46857
REFERENCE    Yoshimura, T.; Yuhki, N.
#authors     J. Immunol. (1991) 146:3483-3488
#journal     Neutrophil attractant/activation protein-1 and monocytic
#title       chemoattractant protein-1 in rabbit: cDNA cloning and their
              expression in spleen cells.
              #cross-references MUID:91225489
#accession   I46857
#status      preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues    1-125 #label YOS
#cross-references GB:M57440; NID:g165469; PID:g165470
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY      #length 125 #molecular-weight 13776 #checksum 4498
Query Match      100.0%; Score 84; DB 2; Length 125;
Best Local Similarity 100.0%; Pred. No. 8,66e-06;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db      75 CADPROKQWQ 84
      |||
OY      1 CADPROKQWQ 10

RESULT      5
ENTRY      JC2136      #type complete
TITLE      monocytic chemoattractant protein-1 precursor - pig
ORGANISM    #formal_name Sus scrofa domestica #common_name domestic pig
DATE        30-Sep-1993 #sequence_revision 20-Aug-1994 #text_change
08-Sep-1997
ACCESSIONS  JC2136; S57498
REFERENCE    Hosang, K.; Knoke, I.; Klaudiny, J.; Wempe, F.; Wuttke, W.;
              Schelt, K.H.
#authors     Biochem. Biophys. Res. Commun. (1994) 199:962-968
#journal     Porcine luteal cells express monocytic chemoattractant
#title       protein-1 (MCP-1): Analysis by polymerase chain reaction
              and cDNA cloning.
#accession   JC2136
#molecule_type mRNA
#residues    1-99 #label HOS
REFERENCE    Zach, O.
#authors     submitted to the EMBL Data Library, July 1994
#journal     S57498
#accession   preliminary
#status      preliminary
#molecule_type mRNA
#residues    1-99 #label ZAC
#cross-references EMBL:X79416; NID:g872312; PID:g872313
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS      glycoprotein
FEATURE
1-23          #domain signal sequence #status predicted #label SIG\
```

24-99 #product monocytic chemoattractant protein-1 #status
94 #binding_site carbohydrate (Asn) (covalent) #status
predicted

SUMMARY #length 99 #molecular-weight 10976 #checksum 9768

Query Match 98.8%; Score 83; DB 2; Length 99;
Best Local Similarity 90.0%; Pred. No. 1.42e-05;
Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 75 CADPKKRWQ 84
||:|||||
OY 1 CADPKKRWQ 10

RESULT 6
ENTRY 148099 #type complete
TITLE eotaxin precursor - guinea pig
ORGANISM #formal_name Cavia porcellus #common_name guinea pig
DATE 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change
09-May-1997

ACCESSIONS 148099
REFERENCE 148099
#authors Rothenberg, M.E.; Luster, A.D.; Lilly, C.M.; Drazen, J.M.;
#journal J. Exp. Med. (1995) 181:1211-1216
#title Constitutive and allergen-induced expression of eotaxin mRNA
in the guinea pig lung.
#cross-references MUID:95173589
#accession 148099
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-96 #label RES
#cross-references EMBL:U18941; NID:9687655; PID:9687656
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 96 #molecular-weight 10753 #checksum 7236

Query Match 91.7%; Score 77; DB 2; Length 96;
Best Local Similarity 90.0%; Pred. No. 2.60e-04;
Matches 9; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 72 CADPKKRWQ 81
|||||
OY 1 CADPKKRWQ 10

RESULT 7
ENTRY JC2478 #type complete
TITLE eotaxin - rat
ORGANISM #formal_name Rattus norvegicus #common_name Norway rat
DATE 21-Feb-1995 #sequence_revision 05-Apr-1995 #text_change
08-Sep-1997

ACCESSIONS JC2478
REFERENCE JC2478
#authors Jose, P.J.; Adcock, I.M.; Griffith-Johnson, D.A.; Berkman,
N.; Wells, T.N.C.; Williams, T.J.; Power, C.A.;
Biochem. Biophys. Res. Commun. (1994) 205:786-794
#journal Biochem. Biophys. Res. Commun. (1994) 205:786-794
#title Eotaxin: Cloning of an eosinophil chemoattractant cytokine
and increased mRNA expression in allergen-challenged
guinea-pig lungs.

#accession JC2478
#molecule_type mRNA
#residues 1-96 #label JOS
#cross-references EMBL:X77603; NID:9602551; PID:9602552
COMMENT This protein is identified as a potent eosinophil chemoattractant.
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS glycoprotein
FEATURE 1-23 #domain signal sequence #status predicted #label SIG\
24-96 #product eotaxin #status predicted #label MAT\
93 #binding_site carbohydrate (Thr) (covalent) #status
predicted

SUMMARY #length 96 #molecular-weight 10695 #checksum 7329

Query Match 91.7%; Score 77; DB 2; Length 96;
Best Local Similarity 90.0%; Pred. No. 2.60e-04;
Matches 9; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 72 CADPKKRWQ 81
|||||
OY 1 CADPKKRWQ 10

RESULT 8
ENTRY JC2417 #type complete
TITLE monocytic chemoattractant protein-2 - pig
ORGANISM #formal_name Sus scrofa domestica #common_name domestic pig
DATE 24-Feb-1995 #sequence_revision 24-Feb-1995 #text_change
03-May-1996

ACCESSIONS JC2417
REFERENCE JC2417
#authors Hosang, K.; Knoch, I.; Klaudiny, J.; Wempe, F.; Wuttke, W.;
#journal Biochem. Biophys. Res. Commun. (1994) 205:148-153
#title Porcine luteal cells express monocytic chemoattractant
protein-2 (MCP-2): Analysis by cDNA cloning and northern
analyses.

#accession JC2417
#molecule_type mRNA
#residues 1-99 #label HOS
#cross-references #experimental_source corpus luteum
CLASSIFICATION #superfamily macrophage inflammatory protein
FEATURE 1-23 #domain signal sequence #status predicted #label SIG\
24-99 #product monocytic chemoattractant protein-2 #status
predicted #label MAT

SUMMARY #length 99 #molecular-weight 10903 #checksum 7556

Query Match 91.7%; Score 77; DB 2; Length 99;
Best Local Similarity 90.0%; Pred. No. 2.60e-04;
Matches 9; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 75 CADPKKRWQ 84
|||||
OY 1 CADPKKRWQ 10

RESULT 9
ENTRY A54678 #type complete
TITLE monocytic chemoattractant protein 3 precursor - human
ORGANISM #formal_name Homo sapiens #common_name man
DATE 28-Oct-1994 #sequence_revision 28-Oct-1994 #text_change
24-Sep-1998

ACCESSIONS A54678; S32222
REFERENCE A54678
#authors Opendakker, G.; Fiten, P.; Nys, G.; Froyen, G.; Van Roy, N.;
Speleman, F.; Laureys, G.; Van Damme, J.
Genomics (1994) 21:403-408
#journal The human MCP-3 gene (SCYA7): cloning, sequence analysis, and
assignment to the C-C chemokine gene cluster on chromosome
19q11.2-q12.

#accession A54678
#molecule_type DNA
#residues 1-109 #label OPD
#cross-references GB:X72309
REFERENCE JC1478
#authors Opendakker, G.; Froyen, G.; Fiten, P.; Proost, P.; Van Damme,
J.
Biochem. Biophys. Res. Commun. (1993) 191:535-542
#journal Human monocytic chemoattractant protein-3 (MCP-3): Molecular
cloning of the cDNA and comparison with other chemokines.
#accession JC1478
#molecule_type mRNA
#residues 1-109 #label OP2
REFERENCE S32222

#authors Minty, A.; Chalon, P.; Guillemot, J.C.; Kaghad, M.; Liauzon, P.; Magazian, M.; Miloux, B.; Minty, C.; Ramond, P.; Vitta, N.; Lupker, J.; Shire, D.; Ferrara, P.; Caput, D.
#submission Submitted to the EMBL Data Library, March 1993
#description Molecular cloning of MCP-3: a human monocyte-derived monocyte chemoattractant protein.
#accession S32222
#molecule_type mRNA
#residues 1-109 #label MIN
#cross-references EMBL:X71087; NID:q288396; PID:q288397
COMMENT This protein induces proteinase secretion and chemotaxis by macrophages and monocytes.
GENETICS
#gene GDB:SCYA7; SCYA6; MCP-3
#cross-references GDB:138473; OMIM:158106
#map_position 17q11-17q12
#introns 36/1; 75/2
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS cytokine; glycoprotein; inflammation
FEATURE
1-33
34-109
39 #domain signal sequence #status predicted #label sig\
#product monocyte chemotactic protein 3 #status predicted #label MAT\
#binding_site carbohydrate (Asn) (covalent) #status predicted
SUMMARY #length 109 #molecular-weight 12356 #checksum 1535
Query Match 91.7%; Score 77; DB 2; Length 109;
Best Local Similarity 90.0%; Pred. No. 2,60e-04;
Matches 9; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
Db 85 CADPCKRWQ 94
QY 1 CADPCKRWQ 10
RESULT 10
ENTRY 148147 #type complete
TITLE monocyte chemoattractant protein-1 - guinea pig
ORGANISM #formal_name Cavia porcellus #common_name guinea pig
DATE 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change
09-May-1997
ACCESSIONS 148147
REFERENCE 148147
#authors Yoshimura, T.
#journal J. Immunol. (1993) 150:5025-5032
#title cDNA cloning of guinea pig monocyte chemoattractant protein-1 and expression of the recombinant protein.
#cross-references MIM:93267104
#accession 148147
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-120 #label RES
#cross-references GB:L04985; NID:g349820; PID:g349821
JEWETICS
#gene MCP-1
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 120 #molecular-weight 13741 #checksum 9252
Query Match 91.7%; Score 77; DB 2; Length 120;
Best Local Similarity 90.0%; Pred. No. 2,60e-04;
Matches 9; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
Db 73 CADPCKRWQ 82
QY 1 CADPCKRWQ 10
RESULT 11
ENTRY JC4912 #type complete
TITLE eotaxin - human
ORGANISM #formal_name Homo sapiens #common_name man
DATE 01-Nov-1996 #sequence_revision 01-Nov-1996 #text_change

08-Sep-1997
ACCESSIONS JC4912
REFERENCE JC4912
#authors Bartels, J.; Schluter, C.; Richter, E.; Noso, N.; Kulke, R.; Christophers, E.; Schroeder, J.M.
#journal Biochem. Biophys. Res. Commun. (1996) 225:1045-1051
#title Human dermal fibroblasts express eotaxin: Molecular cloning, mRNA expression, and identification of eotaxin sequence variants.
#accession JC4912
#status preliminary
#molecule_type mRNA
#residues 1-97 #label BAR
#cross-references EMBL:Z75668; NID:g1531962; PID:e251275; PID:g1531963
#experimental_source dermal fibroblast
COMMENT This protein has eosinophil specific chemotactic activity.
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS fibroblast
FEATURE
1-18
19-97
SUMMARY #domain signal sequence #status predicted #label sig\
#product eotaxin #status predicted #label MAT
#length 97 #molecular-weight 10790 #checksum 448
Query Match 88.1%; Score 74; DB 2; Length 97;
Best Local Similarity 80.0%; Pred. No. 1,08e-03;
Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
Db 73 CADPCKRWQ 82
QY 1 CADPCKRWQ 10
RESULT 12
ENTRY 152322 #type complete
TITLE macrophage inflammatory protein-1alpha - rat
ORGANISM #formal_name Rattus norvegicus #common_name Norway rat
DATE 29-May-1998 #sequence_revision 29-May-1998 #text_change
02-Jul-1998
ACCESSIONS 152322
REFERENCE 152322
#authors Shi, M.M.; Godleski, J.J.; Pauluski, J.D.
#journal Biochem. Biophys. Res. Commun. (1995) 211:289-295
#title Molecular cloning and posttranscriptional regulation of macrophage inflammatory protein-1 alpha in alveolar macrophages.
#cross-references MIM:95298037
#accession 152322
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-92 #label RES
#cross-references EMBL:U22414; NID:g790632; PID:g790633
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 92 #molecular-weight 10335 #checksum 3184
Query Match 86.9%; Score 73; DB 2; Length 92;
Best Local Similarity 80.0%; Pred. No. 1,73e-03;
Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
Db 73 CADPCKRWQ 82
QY 1 CADPCKRWQ 10
RESULT 13
ENTRY JN0841 #type complete
TITLE interleukin-8 - dog
ORGANISM #formal_name Canis lupus familiaris #common_name dog
DATE 19-May-1994 #sequence_revision 19-May-1994 #text_change
12-Apr-1995
ACCESSIONS JN0841
REFERENCE JN0841
#authors Ishikawa, J.; Suzuki, S.; Hotta, K.; Hirota, Y.; Mizuno, S.; Suzuki, K.

#journal 1 Gene (1993) 131:305-306
#title Cloning of a canine gene homologous to the human
#accession JN0841
#molecule-type DNA
#residues 1-95 ##label ISH
#comment This protein is a polymorphonuclear leukocytes chemotactic factor
and is involved in the host defense function.

GENETICS
#introns 22/1; 67/2
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 95 #molecular-weight 10611 #checksum 3157

Query Match 86.9%; Score 73; DB 2; Length 95;
Best Local Similarity 80.0%; Pred. No. 1.73e-03;
Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 77 CDDPKKRWQ 86
1 |||:||||
QY 1 CADPKOKRWQ 10

RESULT 14
ENTRY I46871 #type complete
TITLE Interleukin-8 - rabbit
ALTERNATE_NAMES neutrophil attractant/activation protein-1
ORGANISM #formal_name Oryctolagus cuniculus #common_name domestic
rabbit
DATE 14-Feb-1997 #sequence_revision 14-Feb-1997 #text_change
09-Aug-1997
ACCESSIONS I46871; S13052
REFERENCE I46857
#authors Yoshimura, T.; Yuhki, N.
#journal J. Immunol. (1991) 146:3483-3488
#title Neutrophil attractant/activation protein-1 and monocyte
chemoattractant protein-1 in rabbit: cDNA cloning and their
expression in spleen cells.

#cross-references MUID:91225489
#accession I46871
#status Preliminary; translated from GB/EMBL/DBJ
#molecule-type mRNA
#residues 1-101 ##label YOS
#cross-references GB:M57439; NID:g165552; PID:g165553
S13052
REFERENCE
#authors Beaudien, B.C.; Collins, P.D.; Jose, P.J.; Totty, N.F.;
Hsuan, J.; Waterfield, M.D.; Williams, T.J.
#journal Biochem. J. (1990) 271:797-801
#title A novel neutrophil chemoattractant generated during an
inflammatory reaction in the rabbit peritoneal cavity in
vivo. Purification, partial amino acid sequence and
structural relationship to Interleukin 8.

#cross-references MUID:91058518
#accession S13052
#molecule-type protein
#residues 23-33,'X',35,'X',37-46,'X',48-49,'I',51-53 ##label BEA
CLASSIFICATION #superfamily beta-thromboglobulin
KEYWORDS cytokine
SUMMARY #length 101 #molecular-weight 11402 #checksum 1085

Query Match 86.9%; Score 73; DB 2; Length 101;
Best Local Similarity 80.0%; Pred. No. 1.73e-03;
Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 77 CDDPKKRWQ 86
1 |||:||||
QY 1 CADPKOKRWQ 10

RESULT 15
ENTRY I46997 #type complete
TITLE Interleukin-8 - sheep
ORGANISM #formal_name Ovis sp. #common_name sheep
DATE 21-Feb-1997 #sequence_revision 21-Feb-1997 #text_change

09-May-1997
ACCESSIONS I46997
REFERENCE I46997
#authors Seow, H.F.; Yoshimura, T.; Wood, P.R.; Colditz, I.G.
#journal Immunol. Cell Biol. (1994) 72:398-405
#title Cloning, sequencing, expression and inflammatory activity in
skin of ovine interleukin-8.

#cross-references MUID:95137691
#accession I46997
#status Preliminary; translated from GB/EMBL/DBJ
#molecule-type mRNA
#residues 1-101 ##label SEO
#cross-references GB:S74436; NID:g786590; PID:g786591

GENETICS
#gene OIL-8
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 101 #molecular-weight 11292 #checksum 294

Query Match 86.9%; Score 73; DB 2; Length 101;
Best Local Similarity 80.0%; Pred. No. 1.73e-03;
Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 77 CDDPKKRWQ 86
1 |||:||||
QY 1 CADPKOKRWQ 10

RESULT 16
ENTRY S42496 #type complete
TITLE Interleukin 8 - sheep
ORGANISM #formal_name Ovis orientalis aries, Ovis ammon aries
#common_name domestic sheep
DATE 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change
08-Sep-1997
ACCESSIONS S42496
REFERENCE S42496
#authors Legestelois, I.; Greenland, T.; Arnaud, P.; Mornex, J.F.;
Cordier, G.
#submissions submitted to the EMBL Data Library, March 1994
#description Nucleotide sequence of ovine interleukin 8 cDNA using
polymerase chain reaction.

#accession S42496
#status Preliminary
#molecule-type mRNA
#residues 1-101 ##label LBG
#cross-references EMBL:X78306; NID:g463253; PID:g463254
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 101 #molecular-weight 11292 #checksum 294

Query Match 86.9%; Score 73; DB 2; Length 101;
Best Local Similarity 80.0%; Pred. No. 1.73e-03;
Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 77 CDDPKKRWQ 86
1 |||:||||
QY 1 CADPKOKRWQ 10

RESULT 17
ENTRY A44253 #type complete
TITLE Alveolar macrophage chemotactic factor-I (AMCF-I)
ORGANISM #formal_name Sus scrofa domestica #common_name domestic pig
DATE 30-Apr-1993 #sequence_revision 18-Nov-1994 #text_change
23-Feb-1996
ACCESSIONS A44253
REFERENCE A44253
#authors Goodman, R.B.; Foster, D.C.; Mathewes, S.L.; Osborn, S.G.;
Kuljper, J.L.; Forstrom, J.W.; Martin, T.R.
#journal Biochemistry (1992) 31:10483-10490
#title Molecular cloning of porcine alveolar macrophage-derived
neutrophil chemotactic factors I and II: identification of
porcine IL-8 and another intercrine alpha protein.

```

#cross-references MUID:93041741
#accession A44253
#status Preliminary
#molecule_type mRNA; protein
#residues 1-103 #label GOO
#experimental_source alveolar macrophage
#note sequence extracted from NCBI backbone (NCBIN:117415,
NCBIR:117416)
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 103 #molecular-weight 11677 #checksum 8904

Query Match
Best Local Similarity 86.9%; Score 73; DB 2; Length 103;
Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 77 CLDPKRWVQ 86
1 1111111
OY 1 CADPRQKWVQ 10

RESULT 18
ENTRY A53096 #type complete
TITLE Interleukin-8 precursor - pig
ORGANISM #formal_name Sus scrofa domestica #common_name domestic pig
DATE 02-Jun-1995 #sequence_revision 02-Jun-1995 #text_change
08-Sep-1997
ACCESSIONS A53096
REFERENCE A53096
#authors Lin, G.; Pearson, A.E.; Scamurra, R.W.; Zhou, Y.; Baarsch,
M.J.; Weiss, D.J.; Murtough, M.P.
#journal J. Biol. Chem. (1994) 269:77-85
#title Regulation of Interleukin-8 expression in porcine alveolar
macrophages by bacterial lipopolysaccharide.
#accession A53096
#status Preliminary
#molecule_type mRNA
#residues 1-103 #label LIN
#cross-references GB:M66923; NID:g164520; PID:g164521
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 103 #molecular-weight 11633 #checksum 8835

Query Match
Best Local Similarity 86.9%; Score 73; DB 2; Length 103;
Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 77 CLDPKRWVQ 86
1 1111111
OY 1 CADPRQKWVQ 10

RESULT 19
ENTRY JC5295 #type complete
TITLE monocyte chemotactic protein-2 - human
ORGANISM #formal_name Homo sapiens #common_name man
DATE 02-May-1997 #sequence_revision 18-Jul-1997 #text_change
31-Oct-1997
ACCESSIONS JC5295
REFERENCE JC5295
#authors Van Collie, E.; Froyen, G.; Nomiya, H.; Miura, R.; Fiten,
P.; Van Aelst, I.; Van Damme, J.; Odenakker, G.
#journal Biochem. Biophys. Res. Commun. (1997) 231:726-730
#title Human monocyte chemotactic protein-2: cDNA cloning and
regulated expression of mRNA in mesenchymal cells.
#accession JC5295
#molecule_type mRNA
#residues 1-99 #label VAN
#cross-references GB:Y10802; NID:g1924937; PID:e294088; PID:g1924938
COMMENT This protein belongs to the beta-chemokine family which is one of
the major HIV-suppressive factors. It plays roles in autoimmune
processes such as multiple sclerosis and rheumatoid arthritis and
in tumor biology, and contribute to the trafficking and
recruitment of the responsive cells.

#cross-references MUID:93041741
#accession A44253
#status Preliminary
#molecule_type mRNA; protein
#residues 1-103 #label GOO
#experimental_source alveolar macrophage
#note sequence extracted from NCBI backbone (NCBIN:117415,
NCBIR:117416)
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 103 #molecular-weight 11677 #checksum 8904

Query Match
Best Local Similarity 86.9%; Score 73; DB 2; Length 103;
Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 77 CLDPKRWVQ 86
1 1111111
OY 1 CADPRQKWVQ 10

RESULT 18
ENTRY A53096 #type complete
TITLE Interleukin-8 precursor - pig
ORGANISM #formal_name Sus scrofa domestica #common_name domestic pig
DATE 02-Jun-1995 #sequence_revision 02-Jun-1995 #text_change
08-Sep-1997
ACCESSIONS A53096
REFERENCE A53096
#authors Lin, G.; Pearson, A.E.; Scamurra, R.W.; Zhou, Y.; Baarsch,
M.J.; Weiss, D.J.; Murtough, M.P.
#journal J. Biol. Chem. (1994) 269:77-85
#title Regulation of Interleukin-8 expression in porcine alveolar
macrophages by bacterial lipopolysaccharide.
#accession A53096
#status Preliminary
#molecule_type mRNA
#residues 1-103 #label LIN
#cross-references GB:M66923; NID:g164520; PID:g164521
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 103 #molecular-weight 11633 #checksum 8835

Query Match
Best Local Similarity 86.9%; Score 73; DB 2; Length 103;
Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 77 CLDPKRWVQ 86
1 1111111
OY 1 CADPRQKWVQ 10

RESULT 19
ENTRY JC5295 #type complete
TITLE monocyte chemotactic protein-2 - human
ORGANISM #formal_name Homo sapiens #common_name man
DATE 02-May-1997 #sequence_revision 18-Jul-1997 #text_change
31-Oct-1997
ACCESSIONS JC5295
REFERENCE JC5295
#authors Van Collie, E.; Froyen, G.; Nomiya, H.; Miura, R.; Fiten,
P.; Van Aelst, I.; Van Damme, J.; Odenakker, G.
#journal Biochem. Biophys. Res. Commun. (1997) 231:726-730
#title Human monocyte chemotactic protein-2: cDNA cloning and
regulated expression of mRNA in mesenchymal cells.
#accession JC5295
#molecule_type mRNA
#residues 1-99 #label VAN
#cross-references GB:Y10802; NID:g1924937; PID:e294088; PID:g1924938
COMMENT This protein belongs to the beta-chemokine family which is one of
the major HIV-suppressive factors. It plays roles in autoimmune
processes such as multiple sclerosis and rheumatoid arthritis and
in tumor biology, and contribute to the trafficking and
recruitment of the responsive cells.

GENETICS
#gene MCP-2
CLASSIFICATION #superfamily macrophage inflammatory protein
FEATURE
1-23 #domain signal sequence #status predicted #label SIG\
24-99 #product monocyte chemotactic protein-2 #status
predicted #label MAT
SUMMARY #length 99 #molecular-weight 11246 #checksum 6596

Query Match
Best Local Similarity 84.5%; Score 71; DB 2; Length 99;
Matches 7; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Db 75 CADPRRWVR 84
1 1111111
OY 1 CADPRQKWVQ 10

RESULT 20
ENTRY I48148 #type complete
TITLE Neutrophil attractant protein-1 - guinea pig
ORGANISM #formal_name Cavia porcellus #common_name guinea pig
DATE 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change
23-Feb-1997
ACCESSIONS I48148
REFERENCE I48148
#authors Yoshimura, T.; Johnson, D.G.
#journal J. Immunol. (1993) 151:6225-6236
#title cDNA cloning and expression of guinea pig neutrophil
attractant protein-1 (NAP-1): NAP-1 is highly conserved in
guinea pig.
#cross-references MUID:94065176
#accession I48148
#status Preliminary; translated from GB/EMBL/DBJ
#molecule_type DNA
#residues 1-101 #label RPS
#cross-references GB:L04986; NID:g459764; PID:g459765
GENETICS
#gene NAP-1
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 101 #molecular-weight 11414 #checksum 2363

Query Match
Best Local Similarity 83.3%; Score 70; DB 2; Length 101;
Matches 8; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Db 77 CLDPKRWVQ 86
1 1111111
OY 1 CADPRQKWVQ 10

RESULT 21
ENTRY A30209 #type complete
TITLE PDGF-inducible JE glycoprotein precursor - mouse
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE 01-Dec-1989 #sequence_revision 01-Dec-1989 #text_change
01-May-1998
ACCESSIONS A30209; A44771; A30861
REFERENCE A30209
#authors Rollins, B.J.; Morrison, E.D.; Stiles, C.D.
#journal Proc. Natl. Acad. Sci. U.S.A. (1988) 85:3738-3742
#title Cloning and expression of JE, a gene inducible by
platelet-derived growth factor and whose product has
cytokine-like properties.
#cross-references MUID:88234501
#accession A30209
#molecule_type DNA
#residues 1-148 #label ROL
#cross-references GB:M19681; NID:g193486; PID:g387168; GB:M19682
REFERENCE A44771
#authors Kawahara, R.S.; Deuel, T.F.
#journal J. Biol. Chem. (1989) 264:679-682
#title Platelet-derived growth factor-inducible gene JE is a member

```

```
of a family of small inducible genes related to platelet
factor 4.
#accession A44771
##molecule_type DNA; mRNA
##residues 1-148 ##label RA2
##cross-references GB:J04467; NID:g193488; PID:g387169
GENETICS
#gene JE
#introns 26/1; 65/2
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS cytokine; glycoprotein
FEATURE
126 #binding_site carbohydrate (asn) (covalent) #status
SUMMARY #length 148 #molecular_weight 16326 #checksum 5278
GENETICS
#gene SDF-1-alpha
#residues 1-89 ##label RES
##cross-references GB:U12029; NID:g393179; PID:g393180
SUMMARY #length 89 #molecular_weight 10032 #checksum 4622
Query Match 79.8%; Score 67; DB 2; Length 89;
Best Local Similarity 70.0%; Pred. No. 2.73e-02;
Matches 7; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 71 CIDPRKMIQ 80
| | | | | | | |
OY 1 CADPRKQWVQ 10

RESULT 22
ENTRY I53416 #type complete
TITLE Interleukin-8 homolog - mouse
ORGANISM #formal_name Mus sp. #common_name mouse
DATE 02-Aug-1996 #sequence_revision 02-Aug-1996 #text_change
28-Feb-1997
ACCESSIONS I53416
REFERENCE I53416
#authors Jiang, W.; Zhou, P.; Kahn, S.M.; Tomita, N.; Johnson, M.D.;
#journal Exp. Cell Res. (1994) 215:284-293
#title Molecular cloning of TPARI, a gene whose expression is
repressed by the tumor promoter 12-O-tetradecanoylphorbol
13-acetate (TPA).
#cross-references MUID:95073497
#accession I53416
#status preliminary; translated from GB/EMBL/DBJ
##molecule_type mRNA
##residues 1-89 ##label RES
##cross-references GB:S74316; NID:g786393; PID:g786394
GENETICS
#gene TPARI
SUMMARY #length 89 #molecular_weight 10032 #checksum 4622
Query Match 79.8%; Score 67; DB 2; Length 89;
Best Local Similarity 70.0%; Pred. No. 2.73e-02;
Matches 7; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 71 CIDPRKMIQ 80
| | | | | | | |
OY 1 CADPRKQWVQ 10

RESULT 23
ENTRY A53497 #type complete
TITLE pre-B-cell growth-stimulating factor precursor - mouse
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE 02-Jun-1994 #sequence_revision 02-Jun-1994 #text_change
10-Sep-1997
ACCESSIONS A53497; I59582
REFERENCE A53497
#authors Nagasawa, T.; Kikutani, H.; Kishimoto, T.
#journal Proc. Natl. Acad. Sci. U.S.A. (1994) 91:2305-2309
#title Molecular cloning and structure of a pre-B-cell
growth-stimulating factor.
#accession A53497
#status preliminary
##molecule_type mRNA

of a family of small inducible genes related to platelet
factor 4.
#accession A44771
##molecule_type DNA; mRNA
##residues 1-148 ##label RA2
##cross-references GB:J04467; NID:g193488; PID:g387169
GENETICS
#gene JE
#introns 26/1; 65/2
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS cytokine; glycoprotein
FEATURE
126 #binding_site carbohydrate (asn) (covalent) #status
SUMMARY #length 148 #molecular_weight 16326 #checksum 5278
GENETICS
#gene SDF-1-alpha
#residues 1-89 ##label RES
##cross-references GB:U12029; NID:g393179; PID:g393180
SUMMARY #length 89 #molecular_weight 10032 #checksum 4622
Query Match 79.8%; Score 67; DB 2; Length 89;
Best Local Similarity 70.0%; Pred. No. 2.73e-02;
Matches 7; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 71 CIDPRKMIQ 80
| | | | | | | |
OY 1 CADPRKQWVQ 10

RESULT 24
ENTRY G01540 #type complete
TITLE cytokine SDF-1-beta - human
ORGANISM #formal_name Homo sapiens #common_name man
DATE 21-Dec-1996 #sequence_revision 06-Jun-1997 #text_change
17-Jul-1998
ACCESSIONS G01540
REFERENCE G07697
#authors Spottila, L.D.
#journal Submitted to the EMBL Data Library, October 1994
#title
#accession G01540
#status preliminary; translated from GB/EMBL/DBJ
##molecule_type mRNA
##residues 1-93 ##label SPO
##cross-references EMBL:U16752; NID:g1272194; PID:g571508
SUMMARY #length 93 #molecular_weight 10666 #checksum 6309
Query Match 79.8%; Score 67; DB 2; Length 93;
Best Local Similarity 70.0%; Pred. No. 2.73e-02;
Matches 7; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 71 CIDPRKMIQ 80
| | | | | | | |
OY 1 CADPRKQWVQ 10

RESULT 25
ENTRY I81182 #type complete
TITLE cytokine - mouse
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE 02-Aug-1996 #sequence_revision 02-Aug-1996 #text_change
28-Feb-1997
ACCESSIONS I81182
REFERENCE I59582
#authors Tashiro, K.; Tada, H.; Heilker, R.; Shirozu, M.; Nakano, T.;
#journal Science (1993) 261:600-603
#title Signal sequence trap: a cloning strategy for secreted
proteins and type I membrane proteins.
#accession I81182
#status preliminary; translated from GB/EMBL/DBJ
##molecule_type mRNA
##residues 1-93 ##label RES
##cross-references GB:U12030; NID:g393181; PID:g393182
```


GENETICS
#gene SDF-1-beta
#SUMMARY length 93 #molecular-weight 10561 #checksum 5309

Query Match 79.8%; Score 67; DB 2; Length 93;
Best Local Similarity 70.0%; Pred. No. 2,73e-02;
Matches 7; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 71 CIDPKLKWIQ 80
1 1111111
QY 1 CADPKKRWVQ 10

RESULT 26
ENTRY A37034 #type complete
TITLE Interleukin-8 precursor - human
ALTERNATE_NAMES beta-thromboglobulin-like protein; fibroblast-derived neutrophil-activating factor alpha; lung carcinoma-derived chemotaxin; lymphocyte-derived neutrophil-activating factor; monocyte-derived neutrophil chemotactic factor; monocyte-derived neutrophil-activating factor
#formal_name Homo sapiens #common_name man
08-Dec-1992 #sequence_revision 08-Dec-1992 #text_change 13-Sep-1998

ORGANISM
DATE

ACCESSIONS
A37034; J10041; A32791; S37634; P10107; A28598; A27488;
A39960; A60401; A60591; S15827; S04216; A60567; A60847;
S15417; S03975; I54560; I55992; I37902; S67519

REFERENCE
#authors A37034
#journal Mukai, N.; Shiroo, M.; Matsushima, K.
#title J. Immunol. (1989) 143:1366-1371
Genomic structure of the human monocyte-derived neutrophil chemotactic factor IL-8.
#cross-references MIMD:89309826
#accession A37034
#molecule_type DNA
#residues 1-99 #label MUK
#cross-references GB:M28130; NID:g186367; PID:g186368
#note the authors failed to translate the last thirty-six nucleotides of the second exon

REFERENCE
#authors J10041
#journal Matsushima, K.; Morishita, K.; Yoshimura, T.; Lavu, S.; Kobayashi, Y.; Lew, W.; Appella, E.; Kung, H.F.; Leonard, E.J.; Oppenheim, J.J.
#title J. Exp. Med. (1988) 167:1883-1893
Molecular cloning of a human monocyte-derived neutrophil chemotactic factor (MDNCF) and the induction of MDNCF mRNA by interleukin 1 and tumor necrosis factor.
#cross-references MIMD:88258376
#accession J10041
#molecule_type mRNA
#residues 1-99 #label MA1
#cross-references EMBL:Y00787; NID:g34518; PID:g34519
#note the sequence shows similarity to several platelet-derived factors, a v-src-induced protein, a growth-regulated gene product (gro), and an IFN-gamma-inducible protein

REFERENCE
#authors A32791
#journal Kowalski, J.; Denhardt, D.T.
#title Mol. Cell. Biol. (1989) 9:1946-1957
Regulation of the mRNA for monocyte-derived neutrophil-activating peptide in differentiating HL60 promyelocytes.
#cross-references MIMD:89313739
#accession A32791
#molecule_type mRNA
#residues 1-99 #label KOW
#cross-references GB:M26383; NID:g188627; PID:g188628
#accession S37634
#authors King, C.H.; Gordon, G.S.; Konieczkowski, M.; Sedor, J.R.
#submission submitted to the EMBL Data Library, February 1992
#accession S37634
#status preliminary
#molecule_type mRNA

#residues 1-97 #label KIN
#cross-references EMBL:Z11686; NID:g33958; PID:g33959

REFERENCE
#authors P10107
#journal Suzuki, K.; Miyasaka, H.; Ota, H.; Yamakawa, Y.; Tagawa, M.; Kuramoto, A.; Mizuno, S.
#title J. Exp. Med. (1989) 169:1895-1901
Purification and partial primary sequence of a chemotactic protein for polymorphonuclear leukocytes derived from human lung giant cell carcinoma Lu65C cells.
#cross-references MIMD:89279141
#accession P10107
#molecule_type protein
#residues 23-32, 'XR', 35, 'X', 37-52, 'L', 54 #label SUZ
#experimental_source lung giant cell carcinoma Lu65C

REFERENCE
#authors A28598
#journal Gregory, H.; Young, J.; Schroeder, J.M.; Mrowietz, U.; Christophers, E.
#title Blochem. Biophys. Res. Commun. (1988) 151:883-890
Structure determination of a human lymphocyte derived neutrophil activating peptide (LYNAP).
#cross-references MIMD:88162914
#accession A28598
#molecule_type protein
#residues 28-99 #label GRE

REFERENCE
#authors A27488
#journal Walz, A.; Peverl, P.; Aschauer, H.; Baggiolini, M.
#title Blochem. Biophys. Res. Commun. (1987) 149:755-761
Purification and amino acid sequencing of NAF, a novel neutrophil-activating factor produced by monocytes.
#cross-references MIMD:88106502
#accession A27488
#molecule_type protein
#residues 28-59 #label WAL

REFERENCE
#authors A39960
#journal Yoshimura, T.; Matsushima, K.; Tanaka, S.; Robinson, E.A.; Appella, E.; Oppenheim, J.J.; Leonard, E.J.
#title Proc. Natl. Acad. Sci. U.S.A. (1987) 84:9233-9237
Purification of a human monocyte-derived neutrophil chemotactic factor that has peptide sequence similarity to other host defense cytokines.
#cross-references MIMD:88097462
#accession A39960
#molecule_type protein
#residues 28-69 #label YOS

REFERENCE
#authors A60401
#journal Schroeder, J.M.; Sticherling, M.; Henneicke, H.H.; Preissner, W.C.; Christophers, E.
#title J. Immunol. (1990) 144:2223-2232
IL-1alpha or tumor necrosis factor-alpha stimulate release of three NAP-1/IL-8-related neutrophil chemotactic proteins in human dermal fibroblasts.
#cross-references MIMD:90187866
#accession A60401
#molecule_type protein
#residues 23-32 #label SCH
#note a minor component of this material (15%) includes an additional two amino acids at the amino end

REFERENCE
#authors A60591
#journal Van Damme, J.; Decock, B.; Conings, R.; Lenaerts, J.P.; Opdenakker, G.; Billiau, A.
#title Eur. J. Immunol. (1989) 19:1189-1194
The chemotactic activity for granulocytes produced by virally infected fibroblasts is identical to monocyte-derived interleukin 8.
#accession A60591
#molecule_type protein
#residues 23-33, 'X', 35, 'X', 37-42 #label VAN

REFERENCE
#authors S15827
#journal Nakagawa, H.; Hatakeyama, S.; Ikesue, A.; Miyai, H.
#title FEBS Lett. (1991) 282:412-414
Generation of interleukin-8 by plasma from AVPR-interleukin-8, the human fibroblast-derived

neutrophil chemotactic factor.

#cross-references MUID:91243843

#accession S15827

#molecule_type protein

#residues 23-33, 'X', 35, 'X', 37-47 #label FEB

REFERENCE S04216

#authors van Damme, J.; van Beeumen, J.; Conings, R.; Decock, B.;

#journal Eur. J. Biochem. (1989) 181:337-344

#title Purification of granulocyte chemotactic peptide/interleukin-8 reveals N-terminal sequence heterogeneity similar to that of beta-thromboglobulin.

#cross-references MUID:89231715

#accession S04216

#molecule_type protein

#residues 21-67 #label VA2

REFERENCE A60567

#authors Yoshimura, T.; Robinson, E.A.; Appella, E.; Matsushima, K.;

#journal Mol. Immunol. (1989) 26:87-93

#title Three forms of monocyte-derived neutrophil chemotactic factor (MNCF) distinguished by different lengths of the amino-terminal sequence.

#accession A60567

#molecule_type protein

#residues 21-33, 'X', 35, 'X', 37-47 #label Y02

#note the forms starting from positions 21, 23, and 28 represented 8%, 47%, and 45%, respectively, of total interleukin-8

REFERENCE A60847

#authors Van Damme, J.; Van Beeumen, J.; Opdenakker, G.; Billiau, A.;

#journal J. Exp. Med. (1988) 167:1364-1376

#title A novel, NH₂-terminal sequence-characterized human monokine possessing neutrophil chemotactic, skin-reactive, and granulocytosis-promoting activity.

#accession A60847

#molecule_type protein

#residues 28-47 #label VA3

REFERENCE S15417

#authors Car, B.D.; Baggiolini, M.; Walz, A.;

#journal Biochem. J. (1991) 275:581-584

#title Formation of neutrophil-activating peptide 2 from platelet-derived connective-tissue-activating peptide III by different tissue proteinases.

#cross-references MUID:91248085

#accession S13417

#status preliminary

#molecule_type protein

#residues 28-99 #label CAR

REFERENCE S03975

#authors Golds, E.E.; Mason, P.; Nytkos, P.;

#journal Biochem. J. (1989) 259:585-588

#title Inflammatory cytokines induce synthesis and secretion of gro protein and a neutrophil chemotactic factor but not beta-2-microglobulin in human synovial cells and fibroblasts.

#cross-references MUID:89246368

#accession S03975

#molecule_type protein

#residues 23-46 #label GOL

REFERENCE I54560

#authors Hotta, K.; Hayashi, K.; Ishikawa, J.; Tagawa, M.; Hashimoto, K.;

#journal Immunol. Lett. (1990) 24:165-170

#title Coding region structure of interleukin-8 gene of human lung giant cell carcinoma LU65C cells that produce ILCT/interleukin-8: homogeneity in interleukin-8 genes.

#cross-references MUID:90346419

Note: remainder of annotations omitted.

Query Match 79.8%; Score 67; DB 2; Length 99;

Best Local Similarity 70.0%; Pred. No. 2.73e-02;

Matches	7;	Conservative	2;	Mismatches	1;	Indels	0;	Gaps	0;
Db	77	CLDPKENVQ	86						
Oy	1	CADPKKVVQ	10						

RESULT 27

ENTRY A46539 #type complete

TITLE monocyte chemoattractant cytokine RANTES precursor - mouse

ALTERNATE_NAMES Murantes

ORGANISM #formal name Mus musculus #common name house mouse

DATE 18-Jun-1993 #sequence_revision 16-Aug-1996 #text_change 11-Sep-1998

ACCESSION I48875; A46539; I48654; I56970

REFERENCE I48875

#authors Danoff, T.M.; Lailley, P.A.; Chang, Y.S.; Heeger, P.S.;

#journal J. Immunol. (1994) 152:1182-1189

#title Cloning, genomic organization, and chromosomal localization of the Scya5 gene encoding the murine chemokine RANTES.

#cross-references MUID:94132613

#accession I48875

#status preliminary; translated from GB/EMBL/DBJ

#molecule_type DNA

#residues 1-91 #label DAN

#cross-references EMBL:U02298; NID:g460090; PID:g460091

REFERENCE A46539

#authors Schall, T.J.; Simpson, N.J.; Mak, J.Y.;

#journal Eur. J. Immunol. (1992) 22:1477-1481

#title Molecular cloning and expression of the murine RANTES cytokine: structural and functional conservation between mouse and man.

#cross-references MUID:92289805

#accession A46539

#molecule_type mRNA

#residues 1-18, 'A', 20-91 #label SCH

#note Experimental source macrophage cell line PMS-1.8 sequence extracted from NCBI backbone (NCBIN:106768, NCBIPI:106770)

REFERENCE I48654

#authors Shin, H.S.; Drysdale, B.E.; Shin, M.L.; Noble, P.W.; Fisher, S.N.; Panetier, W.A.;

#journal Mol. Cell. Biol. (1994) 14:2914-2925

#title Definition of a lipopolysaccharide-responsive element in the 5'-flanking regions of Murantes and cry-2.

#cross-references MUID:94217689

#accession I48654

#status translation not shown; translated from GB/EMBL/DBJ

#molecule_type DNA

#residues 1-91 #label SHI

#cross-references EMBL:X70675; NID:g475205; PID:g475206

REFERENCE I56970

#authors Neilson, E.G.; Krensky, A.;

#journal Kidney Int. (1992) 41:220-225

#title Isolation and characterization of cDNA from renal tubular epithelium encoding murine Rantes: A small interferon from the Scy superfamily.

#cross-references MUID:92277990

#accession I56970

#status translated from GB/EMBL/DBJ

#molecule_type mRNA

#residues 1-40, 'E', 42-91 #label NEI

#cross-references GB:M77747; NID:g200649; PID:g200650

COMMENT This chemoattractant for monocytes but not neutrophils is an immediate-early response protein to LPS stimulation.

GENETICS

#introns 26/1; 63/2

CLASSIFICATION #superfamily macrophage inflammatory protein

KEYWORDS chemotaxis; cytokine; immediate-early protein; inflammation

FEATURE 1-23

24-91 #domain signal sequence #status predicted #label SIG

#product monocyte chemoattractant cytokine RANTES

#status predicted #label MAT
SUMMARY #length 91 #molecular-weight 10071 #checksum 3010

Query Match 78.6%; Score 66; DB 1; Length 91;
Best Local Similarity 70.0%; Pred. No. 4.28e-02;
Matches 7; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 73 CANPEKRWQ 82
1111111111
1 CADPKOKWQ 10

RESULT 28
ENTRY A32393 #type complete
TITLE macrophage inflammatory protein-1-alpha precursor - mouse
ALTERNATE_NAMES heparin-binding chemotaxis protein; L2635B protein;
SCI/MIP-1a; SIS alpha; stem cell inhibitor/macrophage
inflammatory protein 1-alpha; T-cell activation protein
alpha; TYS
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change
08-Sep-1997
S11685; A32393; S04533; A53885; A30552; PS0303; A27596;
I56104

REFERENCE
#authors Grove, M.; Lowe, S.; Graham, G.; Pragnell, I.; Plumb, M.
#journal Nucleic Acids Res. (1990) 18:5561
#title Sequence of the murine haemopoietic stem cell
inhibitor/macrophage inflammatory protein 1-alpha gene.
#cross-references MIM:91016858
#accession S11685
##molecule_type DNA
##residues 1-92 ##label GRO
#cross-references EMBL:X53372; NID:954062; PID:9297531
#note the authors' translation of the nucleotide sequence
differs at several positions from the sequence given

REFERENCE
#authors A32393
#journal Kwon, B.S.; Weisman, S.M.
#journal Proc. Natl. Acad. Sci. U.S.A. (1989) 86:1963-1967
#title cDNA sequence of two inducible T-cell genes.
#cross-references MIM:89184547
#accession A32393
##molecule_type mRNA
##residues 1-92 ##label KWO
#cross-references GB:U04491; NID:9201524; PID:9201525
S04533

REFERENCE
#authors Davatelis, G.; Tekamp-Olson, P.; Wolpe, S.D.; Hermesen, K.;
Luedke, C.; Gallegos, C.; Colt, D.; Merryweather, J.;
Ceram, A.
#journal J. Exp. Med. (1988) 167:1939-1944
#title Cloning and characterization of a cDNA for murine macrophage
inflammatory protein (MIP), a novel monokine with
inflammatory and chemokinetic properties.
#cross-references MIM:88258380
#accession S04533
##molecule_type mRNA
##residues 1-48, 'E', 50-90, 'I', 92 ##label DA2
#cross-references EMBL:X12531
#note the authors translated the codon GAG for residue 49 as
Asp and ATT for residue 91 as Asn in reference A53885

REFERENCE
#authors A53885
#journal Davatelis, G.; Tekamp-Olson, P.; Wolpe, S.D.; Hermesen, K.;
Luedke, C.; Gallegos, C.; Colt, D.; Merryweather, J.;
Ceram, A.
#journal J. Exp. Med. (1989) 170:2189
#contents erratum
#accession A53885
##molecule_type mRNA
##residues 1-92 ##label DAV
#cross-references EMBL:X12531; NID:953122; PID:953123
A30552

REFERENCE
#authors Brown, K.D.; Zurawski, S.M.; Mosmann, T.R.; Zurawski, G.

#journal J. Immunol. (1989) 142:679-687
#title A family of small inducible proteins secreted by leukocytes
are members of a new superfamily that includes leukocyte
and fibroblast-derived inflammatory agents, growth factors,
and indicators of various activation processes.
#cross-references MIM:89093958
#accession A30552
##molecule_type mRNA
##residues 1-21, 'L', 23-61, 'A', 63-92 ##label BRO
#cross-references GB:M23447; NID:9533240; PID:9533241
JL0088

REFERENCE
#authors Sherry, B.; Tekamp-Olson, P.; Gallegos, C.; Bauer, D.;
Davatelis, G.; Wolpe, S.D.; Masiarz, F.; Colt, D.; Ceram,
A.
#journal J. Exp. Med. (1988) 168:2251-2259
#title Resolution of the two components of macrophage inflammatory
protein 1, and cloning and characterization of one of those
components, macrophage inflammatory protein 1 beta.
#cross-references MIM:89067830
#accession PS0303
##molecule_type mRNA
##residues 24-33, 'XX', 36-54 ##label SHE
A27596

REFERENCE
#authors Wolpe, S.D.; Davatelis, G.; Sherry, B.; Beutler, B.; Hesse,
D.G.; Nguyen, H.T.; Moldawer, L.L.; Nathan, C.F.; Lowry,
S.F.; Ceram, A.
#journal J. Exp. Med. (1988) 167:570-581
#title Macrophages secrete a novel heparin-binding protein with
inflammatory and neutrophil chemokinetic properties.
#cross-references MIM:88154745
#accession A27596
##molecule_type protein
##residues 24-33, 'XX', 36-42 ##label WOL
26-Met, 30-Pro, and 39-Thr were also found

REFERENCE
#note 156104
#authors Widmer, U.; Yang, Z.; Van Derwerker, S.; Manogue, K.R.;
Sherry, B.; Ceram, A.
#journal J. Immunol. (1991) 146:4031-4040
#title Genomic structure of murine macrophage inflammatory
protein-1-alpha and conservation of potential regulatory
sequences with a human homolog, LD78.
#cross-references MIM:91237116
#accession I56104
##status preliminary; translated from GB/EMBL/DBJ
##molecule_type DNA
##residues 1-92 ##label RES
#cross-references GB:M73061; NID:9199694; PID:9199695

COMMENT This protein is a monokine.

GENETICS
#introns 23/3; 26/1; 63/2
CLASSIFICATION
#superfamily macrophage inflammatory protein
KEYWORDS
#heparin binding
FEATURES
1-23
24-92
#domain signal sequence #status predicted #label SIG\

SUMMARY #product macrophage inflammatory protein #status
experimental #label MAT
#length 92 #molecular-weight 10345 #checksum 5009

Query Match 78.6%; Score 66; DB 2; Length 92;
Best Local Similarity 70.0%; Pred. No. 4.28e-02;
Matches 7; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 73 CADSKETWQ 82
1111111111
1 CADPKOKWQ 10

RESULT 29
ENTRY C60407 #type fragment
TITLE monocyte adherence-induced protein 5 beta - human (fragment)
ALTERNATE_NAMES #formal_name Homo sapiens #common_name man
ORGANISM 06-Nov-1992 #sequence_revision 06-Nov-1992 #text_change
03-May-1996

Thu Apr 1 08:26:12 1999

US-08-927-939-7.rpr

Page 13

Db 74 CADPSESMTQ 83
| | | | : | | |
QY 1 CADPKOKMTQ 10

Search completed: Thu Apr 1 07:27:32 1999
Job time : 13 secs.

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RESULT	1	STANDARD:	PRT:	99 AA.
ID	MCPL_HUMAN			
AC	P13500			
DT	01-JAN-1990 (REL. 13, CREATED)			
DT	01-JAN-1990 (REL. 13, LAST SEQUENCE UPDATE)			
DT	15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)			
DE	MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE CHEMOTACTIC AND ACTIVATING FACTOR) (MCAF) (MONOCYTE SECRETORY PROTEIN JE)			
DE	(MONOCYTE CHEMOTACTIC PROTEIN 1) (HC11) (SMALL INDUCIBLE CYTOKINE A2).			
GN	SCYA2 OR MCP1.			
OS	HOMO SAPIENS (HUMAN).			
OC	EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA; EUTHERIA; PRIMATES.			
OC	[1]			
RA	SEQUENCE FROM N.A.			
RA	MEDLINE: 89165862.			
RA	FURUTANI Y., NOMURA H., NOTAKE M., OYAMADA Y., FUKUI T., YAMADA M., LARSEN C.G., OPPENHEIM J.J., MATSUSHIMA K.;			
RA	BIOCHEM. BIOPHYS. RES. COMMUN. 159:249-255(1989).			
RA	[2]			
RA	SEQUENCE FROM N.A.			
RA	MEDLINE: 90097880.			
RA	ROLLINS B.J., STIER P., ERNST T., WONG G.G.;			
RA	MOL. CELL. BIOL. 9:4687-4695(1989).			
RA	[3]			
RA	SEQUENCE FROM N.A.			
RA	MEDLINE: 89153605.			
RA	YOSHIMURA T., YUHKI N., MOORE S.K., APPELLA E., LERMAN M.I., LEONARD E.J.;			
RA	FEBS LETT. 244:487-493(1989).			
RA	[4]			
RA	SEQUENCE FROM N.A.			
RA	MEDLINE: 90290466.			
RA	SHY Y.J., LI Y.S., KOLATUKUDY P.E.;			
RA	BIOCHEM. BIOPHYS. RES. COMMUN. 169:346-351(1990).			
RA	[5]			
RA	SEQUENCE FROM N.A.			
RA	MEDLINE: 91207938.			
RA	CHANG H.C., HSU F., FREEMAN G.J., GRIFFIN J.D., REINHERZ E.L.;			
RA	INT. IMMUNOL. 1:388-399(1989).			
RA	[6]			
RA	SEQUENCE FROM N.A.			
RA	MEDLINE: 94150478.			
RA	LI Y.S., SHY Y.J., WRIGHT J.G., VALENTE A.J., CORNHILL J.F., KOLATUKUDY P.E.;			
RA	MOL. CELL. BIOCHEM. 126:61-68(1993).			
RA	[7]			
RA	SEQUENCE FROM N.A.			
RA	MEDLINE: 92095166.			
RA	YOSHIMURA T., LEONARD E.J.;			
RA	ADV. EXP. MED. BIOL. 305:47-56(1991).			
RA	[8]			
RA	SEQUENCE OF 24-99.			
RA	MEDLINE: 89184525.			
RA	ROBINSON E.A., YOSHIMURA T., LEONARD E.J., TANAKA S., GRIFFIN P.R., SHABANOWITZ J., HUNT D.F., APPELLA E.;			
RA	PROC. NATL. ACAD. SCI. U.S.A. 86:1850-1854(1989).			
RA	[9]			
RA	SEQUENCE OF 29-53 AND 82-92.			
RA	MEDLINE: 90211336.			
RA	DECOCK B., CONINGS R., LENAERTS J.-B., BILIAU A., VAN DAMME J.;			
RA	BIOCHEM. BIOPHYS. RES. COMMUN. 167:904-909(1990).			
RA	[10]			
RA	3D-STRUCTURE MODELLING.			

RA	MEDLINE: 91312872.			
RA	GRONENBORN A.M., CLORE G.M.;			
RA	PROTEIN ENG. 4:263-269(1991).			
RA	[11]			
RA	X-RAY CRYSTALLOGRAPHY (1.85 ANGSTROMS).			
RA	MEDLINE: 97143315.			
RA	LUBKOWSKI J., BUJACZ G., DOMAILLE P.J., HANDEL T.M., WLODAWER A.;			
RA	NAT. STRUCT. BIOL. 4:64-69(1997).			
RA	[12]			
RA	STRUCTURE BY NMR.			
RA	MEDLINE: 96234959.			
RA	HANDEL T.M., DOMAILLE P.J.;			
RA	BIOCHEMISTRY 35:6569-6584(1996).			
RA	[13]			
RA	EFFECT OF DELETION OF N-TERMINAL RESIDUES.			
RA	MEDLINE: 96195223.			
RA	WEBER M., DUCUCCI M., BAGGIOLINI M., CLARK-LEWIS I., DAHINDEN C.A.;			
RA	J. EXP. MED. 183:681-685(1996).			
RA	[14]			
RA	MUTAGENESIS.			
RA	MEDLINE: 94253189.			
RA	ZHANG Y.J., RUTLEDGE B.J., ROLLINS B.J.;			
RA	J. BIOL. CHEM. 269:15918-15924(1994).			
RA	[15]			
RA	SUBUNIT.			
RA	MEDLINE: 97053697.			
RA	KIM K.-S., RAJARATHNAM K., CLARK-LEWIS I., SYKES B.D.;			
RA	FEBS LETT. 395:277-282(1996).			
RA	[16]			
RA	FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND BASOPHILS BUT NOT NEUTROPHILS OR EOSINOPHILS. AUGMENTS MONOCYTE ANTI-TUMOR ACTIVITY. HAS BEEN IMPLICATED IN THE PATHOGENESIS OF DISEASES CHARACTERIZED BY MONOCYTIC INFILTRATES, LIKE PSORIASIS, RHEUMATOID ARTHRITIS OR ATHEROSCLEROSIS. MAY BE INVOLVED IN THE RECRUITMENT OF MONOCYTES INTO THE ARTERIAL WALL DURING THE DISEASE PROCESS OF ATHEROSCLEROSIS.			
RA	-1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM.			
RA	-1- PTM: PROCESSING AT THE N-TERMINUS CAN REGULATE RECEPTOR AND TARGET CELL SELECTIVITY. DELETION OF THE AMINO-TERMINAL RESIDUE CONVERTS IT FROM AN ACTIVATOR OF BASOPHIL TO AN EOSINOPHIL CHEMOTACTANT.			
RA	-1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).			
RA	EMBL: M31626: G386961.1.			
RA	EMBL: M30816: G386961.1. JOINED.			
RA	EMBL: M31625: G386961.1. JOINED.			
RA	EMBL: M24545: G307163.1.			
RA	EMBL: M28226: G338009.1.			
RA	EMBL: X14768: G34514.1.			
RA	EMBL: M37719: G487124.1.			
RA	EMBL: M28225: G338007.1.			
RA	EMBL: M28223: G338007.1. JOINED.			
RA	EMBL: M28224: G338007.1. JOINED.			
RA	EMBL: S69738: G545465.1.			
RA	EMBL: S71513: G240868.1.			
RA	EMBL: A17786: G641145.1.			
RA	PIR: A35474: A35474.1.			
RA	PIR: S03339: S03339.1.			
RA	PDB: 1DOK: 12-MAR-97.			
RA	PDB: 1DOL: 12-MAR-97.			
RA	PDB: 1DOM: 14-OCT-96.			
RA	PDB: 1DON: 14-OCT-96.			
RA	PDB: 1MCA: 15-OCT-94.			
RA	MIM: 158105.			
RA	PROSITE: PS00472: SMALL CYTOKINES CC; 1.			
RA	CYTOKINE: CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; 3D-STRUCTURE.			
RA	FT CHAIN 1 23			
RA	FT MOD_RES 24 24			
RA	FT DISULFID 34 59			
RA	FT DISULFID 35 75			
RA	FT CARBOHYD 37 37			
RA	FT VARIANT 76 76			
RA	FT MOTAGEN 24 24			
RA	FT MOTAGEN 25 32			
RA	POTENTIAL.			
RA	A -> T.			
RA	MISSING: LOSS OF ACTIVITY.			
RA	MISSING: LOSS OF ACTIVITY.			
RA	MONOCYTE CHEMOTACTIC PROTEIN 1.			
RA	PYROLIDONE CARBOXYLIC ACID.			

FT MUTAGEN 24 85 MISSING: 90% REDUCTION IN ACTIVITY.
 FT MUTAGEN 24 91 MISSING: 83% REDUCTION IN ACTIVITY.
 FT MUTAGEN 26 26 D->A: 90% REDUCTION IN ACTIVITY.
 FT MUTAGEN 29 29 N->A: 50% REDUCTION IN ACTIVITY.
 FT MUTAGEN 47 47 R->E: 95% REDUCTION IN ACTIVITY.
 FT MUTAGEN 50 50 S->O: 40% REDUCTION IN ACTIVITY.
 FT MUTAGEN 51 51 Y->D: LOSS OF ACTIVITY.
 FT MUTAGEN 53 51 R->L: LOSS OF ACTIVITY.
 FT MUTAGEN 91 91 D->L: 90% REDUCTION IN ACTIVITY.
 SQ SEQUENCE 99 AA: 11025 MW: 53558695 CRC32;

Query Match 100.0%; Score 84; DB 1; Length 99;
 Best Local Similarity 100.0%; Pred. No. 5.05e-07;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 75 CADPROKWO 84
 1 CADPROKWO 10

RESULT 2
 ID MCPA_BOVIN STANDARD; PRT: 99 AA.
 AC P28291;
 DT 01-DEC-1992 (REL. 24, CREATED)
 DT 01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
 DT 01-NOV-1993 (REL. 32, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1A PRECURSOR (MCP-1A) (MCP-1) (ACIDIC
 DE SEMINAL FLUID PROTEIN).
 OS BOS TAURUS (BOVINE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; ARTIODACTYLA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-SEMINAL PLASMA;
 RX MEDLINE: 92096117.
 RA WEMPE F., HENSCHEN A., SCHEIT K.H.;
 RL DNA CELL BIOL. 10:671-679(1991).
 RN [2]
 RP SEQUENCE FROM N.A.
 RC TISSUE-SEMINAL PLASMA;
 RX MEDLINE: 92181448.
 RA WEMPE F., EINSPIANTER R., SCHEIT K.H.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 183:232-237(1992).
 RN [3]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 94338337.
 RA WEMPE F., KUHLHANN J.K., SCHEIT K.H.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 202:1272-1279(1994).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
 CC NEUTROPHILS.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 CC EMBL: L32659; G624394; -.
 CC EMBL: M84602; G163395; -.
 DR PIR: A39296; A39296.
 DR PIR: JC2336; JC2336.
 DR HSSP: P13500; IMCA.
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOTAXIS; SIGNAL.
 FT CHAIN 1 23 BY SIMILARITY.
 FT SIGNAL 1 23 MONOCYTE CHEMOTACTIC PROTEIN 1A.
 FT MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID (BY
 FT SIMILARITY).
 FT DISULFID 34 59 BY SIMILARITY.
 FT DISULFID 35 75 BY SIMILARITY.
 SQ SEQUENCE 99 AA: 11114 MW: C8F5821D CRC32;
 Query Match 100.0%; Score 84; DB 1; Length 99;
 Best Local Similarity 100.0%; Pred. No. 5.05e-07;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Db 75 CADPROKWO 84
 1 CADPROKWO 10

QY 1 CADPROKWO 10

RESULT 3
 ID MCP2_BOVIN STANDARD; PRT: 99 AA.
 AC M09141;
 DT 01-NOV-1995 (REL. 32, CREATED)
 DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
 DE CHEMOTRACTANT PROTEIN 2).
 GN SCY2 OR MCP2.
 OS BOS TAURUS (BOVINE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; ARTIODACTYLA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 94114084.
 RA WEMPE F., HANES J., SCHEIT K.H.;
 RL DNA CELL BIOL. 13:1-8(1994).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES. THIS PROTEIN
 CC CAN BIND HEPARIN.
 CC -1- SUBUNIT: MONOMER OR HOMODIMER. IN EQUILIBRIUM (BY SIMILARITY).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 CC EMBL: S67954; E11856; -.
 CC EMBL: S67956; G544997; -.
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOTAXIS; SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE.
 FT SIGNAL 1 23 BY SIMILARITY.
 FT CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 2.
 FT MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID (BY
 FT SIMILARITY).
 FT DISULFID 34 59 BY SIMILARITY.
 FT DISULFID 35 75 BY SIMILARITY.
 SQ SEQUENCE 99 AA: 10900 MW: 9BA2CD26 CRC32;
 Query Match 100.0%; Score 84; DB 1; Length 99;
 Best Local Similarity 100.0%; Pred. No. 5.05e-07;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Db 75 CADPROKWO 84
 1 CADPROKWO 10

RESULT 4
 ID MCP1_CANFA STANDARD; PRT: 101 AA.
 AC P52203;
 DT 01-OCT-1996 (REL. 34, CREATED)
 DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE
 DE CHEMOTRACTANT PROTEIN-1).
 GN SCY2 OR MCP1.
 OS CANIS FAMILIARIS (DOG).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; CARNIVORA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX TISSUE-UGULAR VEIN ENDOTHELIAL;
 RX MEDLINE: 97116620.
 RA KUMAR A.G., BALLANTYNE C.M., MICHAEL L.H., KUKIELA G.L., YOUNGER K.A.,
 RA LINDSEY M.L., HAWKINS H.K., BIRDSALL H.H., MACRAY C.R., LAROSA G.J.,
 RA ROSEN R.D., SMITH C.W., ENTMAN M.L.;
 RL CIRCULATION 95:693-700(1997).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
 CC NEUTROPHILS. IMPORTANT FACTOR IN THE COURSE OF THE INFLAMMATORY
 CC REACTION TO REPERFUSION OF THE PREVIOUSLY ISCHEMIC MYOCARDIUM.
 CC MAY PLAY A SIGNIFICANT ROLE IN MONOCYTE TRAFFICKING INTO THE
 CC REPERFUSED MYOCARDIUM.
 CC -1- SUBUNIT: MONOMER OR HOMODIMER. IN EQUILIBRIUM (BY SIMILARITY).
 CC -1- INDUCTION: BY TNF-ALPHA.

```

CC -1- TISSUE SPECIFICITY: ENDOTHELIUM OF SMALL VEINS AND INTRAFASCICULAR
VEINS, AND INFILTRATING LEUKOCYTES.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
DR EMBL: U29653; G1144186; -.
DR PROSITE: PS00472; SMALL CYTOKINES CC; 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
FT SIGNAL 1 23
FT CHAIN 24 101
FT MOD_RES 24 24
FT MONOCYTE CHEMOTACTIC PROTEIN 1.
PYRROLIDONE CARBOXYLIC ACID (BY
SIMILARITY).
FT DISULFID 34 59
FT DISULFID 35 75
FT BY SIMILARITY.
SQ SEQUENCE 101 AA: 11121 MW: 47075814 CRC32;

Query Match
Best Local Similarity 100.0%; Score 84; DB 1; Length 101;
Pred. No. 5.05e-07;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 75 CADPROKQWQ 84
|||||
OY 1 CADPROKQWQ 10

RESULT 5
ID MCP1_RABIT STANDARD; PRT; 125 AA.
AC P28292;
DT 01-DEC-1992 (REL. 24, CREATED)
DT 01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1).
GN SCYA2.
OS ORCTOLAGUS CUNICULUS (RABBIT).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; LAGOMORPHA.
RN [1]
RN SEQUENCE FROM N.A.
RC STRAIN=NEW ZEALAND WHITE; TISSUE=SPLEEN;
RX MEDLINE: 91225489.
RA YOSHIMURA T., YOHKI N.;
J. IMMUNOL. 146:3483-3488(1991).
RL -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
NEUTROPHILS.
CC -1- SUBUNIT: MONOMER OR HOMODIMER. IN EQUILIBRIUM (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
DR EMBL: M57440; G165470; -.
DR HSSP: P13500; IMCA.
DR PROSITE: PS00472; SMALL CYTOKINES CC; 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
FT SIGNAL 1 23
FT CHAIN 24 125
FT MOD_RES 24 24
FT MONOCYTE CHEMOTACTIC PROTEIN 1.
PYRROLIDONE CARBOXYLIC ACID (BY
SIMILARITY).
FT DISULFID 34 59
FT DISULFID 35 75
FT BY SIMILARITY.
FT CARBOHYD 40 40
FT CARBOHYD 55 55
FT CARBOHYD 112 112
FT POTENTIAL.
SQ SEQUENCE 125 AA: 13776 MW: FBAC9D27 CRC32;

Query Match
Best Local Similarity 100.0%; Score 84; DB 1; Length 125;
Pred. No. 5.05e-07;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 75 CADPROKQWQ 84
|||||
OY 1 CADPROKQWQ 10

RESULT 6
ID MCP1_PIG STANDARD; PRT; 99 AA.
AC P42831;

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DT 01-NOV-1995 (REL. 32, CREATED)
DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1).
GN SCYA2.
OS SUS SCROFA (PIG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; ARTIODACTYLA.
RN [1]
RN SEQUENCE FROM N.A.
RX MEDLINE: 94183284.
RA HOSANG K., KNOKE I., KLAUDINY J., WEMPE F., WUTKE W., SCHEIT K.H.;
J. BIOCHEM. BIOPHYS. RES. COMMUN. 199:962-968(1994).
RN [2]
RN SEQUENCE FROM N.A.
RC TISSUE=BRIN;
RA ZACH O.R.F.;
RL SUBMITTED (JUL-1994) TO EMBL/GENBANK/DBJ DATA BANKS.
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
NEUTROPHILS.
CC -1- SUBUNIT: MONOMER OR HOMODIMER. IN EQUILIBRIUM (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
DR EMBL: 248479; G683717; -.
DR EMBL: X79416; G872313; -.
DR PROSITE: PS00472; SMALL CYTOKINES CC; 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
FT SIGNAL 1 23
FT CHAIN 24 99
FT MOD_RES 24 24
FT MONOCYTE CHEMOTACTIC PROTEIN 1.
PYRROLIDONE CARBOXYLIC ACID (BY
SIMILARITY).
FT DISULFID 34 59
FT DISULFID 35 75
FT BY SIMILARITY.
SQ SEQUENCE 99 AA: 10976 MW: ECC3AFB4 CRC32;

Query Match
Best Local Similarity 90.0%; Score 83; DB 1; Length 99;
Pred. No. 8.83e-07;
Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 75 CADPROKQWQ 84
|||||
OY 1 CADPROKQWQ 10

RESULT 7
ID MCP4_HUMAN STANDARD; PRT; 98 AA.
AC Q99616;
DT 15-JUL-1998 (REL. 36, CREATED)
DT 15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 4 PRECURSOR (MCP-4) (MONOCYTE
CHEMOTACTIC PROTEIN 4) (CR-BETA10) (MCC-1).
GN SCYA13 OR MCP4 OR MCC1.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; PRIMATES.
RN [1]
RN SEQUENCE FROM N.A.
RC TISSUE=HEART;
RX MEDLINE: 97113354.
RA GARCIA-ZEBEDA E.A., COMBADIERE C., ROTHENBERG M.E., SARAFI M.N.,
LAVIGNE F., HAMID O., MORPHY P.M., LOSTER A.D.;
J. IMMUNOL. 157:5613-5626(1996).
RN [2]
RN SEQUENCE FROM N.A., AND SEQUENCE OF 17-98.
RC TISSUE=FETAL;
RX MEDLINE: 96235049.
RA UGOCCIONI M., LOETSCHER P., FORSMANN U., DEMALD B., LI H., LIMA S.H.,
LI Y., KREIDER B., GAROTTA G., THELEN M., BAGGIOLINI M.;
J. EXP. MED. 183:2379-2384(1996).
RN [3]
RN SEQUENCE FROM N.A., AND SEQUENCE OF 22-33.
RC TISSUE=FETAL;

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RX MEDLINE: 97341179.
 RA BEKHOUT T.A., SRAU H.M., MOORES K., WHITE J.R., ELSHOUBAGY N.,
 RA APPELBAUM E., REAPE T.J., BRANNER M., MAKMAVA J., FOLEY J.J.,
 RA SCHMIDT D.B., IMBURGA C., MACNULTY D., MATTHEWS J., O'DONNELL K.,
 RA O'SHANNESSEY D., SCOTT M., GROOT P.H.E., MACPHEE C.,
 RL J. BIOL. CHEM. 272:16404-16413(1997).
 RN [4]
 RP SEQUENCE FROM N.A.
 RA DANTE M., GIBSON A.,
 RL SUBMITTED (AUG-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, LYMPHOCYTES,
 CC BASOPHILS AND EOSINOPHILS, BUT NOT NEUTROPHILS. SIGNALS THROUGH
 CC CCR2B AND CCR3 RECEPTORS. PLAYS A ROLE IN THE ACCUMULATION OF
 CC LEUKOCYTES AT BOTH SIDES OF ALLERGIC AND NONALLERGIC INFLAMMATION.
 CC MAY BE INVOLVED IN THE RECRUITMENT OF MONOCYTES INTO THE ARTERIAL
 CC WALL DURING THE DISEASE PROCESS OF ARTERIO-SCLEROSIS. MAY PLAY A
 CC ROLE IN THE MONOCYTE ATTRACTION IN TISSUES CHRONICALLY EXPOSED TO
 CC EXOGENOUS PATHOGENS.
 CC -1- MASS SPECTROMETRY: MW-9314; MW_ERR-30; METHOD-MALDI; RANGE-17-98.
 CC -1- MASS SPECTROMETRY: MW-8760; MW_ERR-30; METHOD-MALDI; RANGE-22-98.
 CC -1- MASS SPECTROMETRY: MW-8575; MW_ERR-30; METHOD-MALDI; RANGE-24-98.
 CC -1- INDUCTION: BY INTERLEUKIN-1 AND TNF-ALPHA.
 CC -1- TISSUE SPECIFICITY: WIDELY EXPRESSED. FOUND IN SMALL INTESTINE,
 CC THYMUS, COLON, LUNG, TRACHEA, STOMACH AND LYMPH NODE. LOW LEVELS
 CC SEEN IN THE PULMONARY ARTERY SMOOTH MUSCLE CELLS.
 CC -1- THIS PROTEIN CAN BIND HEPARIN.
 CC -1- PTM: ONE MAJOR ISOFORM MCP-4, AND TWO MINOR ISOFORMS (LA)MCP-4 AND
 CC (NP)POLA)MCP-4 ARE PRODUCED BY DIFFERENTIAL SIGNAL CLEAVAGE.
 CC (LA)MCP-4 IS ABOUT 30 FOLD LESS ACTIVE THAN MCP-4.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 CC EMBL: U46767; G1732123; --.
 DR EMBL: AC002482; G2340091; --.
 DR MIM: 601391; --.
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOTAXIS; SIGNAL; GLYCOPROTEIN; INFLAMMATORY RESPONSE.
 FT SIGNAL 1 23
 FT CHAIN 24 98
 FT MOD_RES 24 24
 FT DISULFID 34 58
 FT DISULFID 35 74
 FT CARBOHYD 29 29
 FT SEQUENCE 98 AA; 10986 MW; D552F6EC CRC32;
 SO
 Query Match 95.2%; Score 80; DB 1; Length 98;
 Best Local Similarity 90.0%; Pred. No. 4.64e-06;
 Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
 Db 74 CADPREKVVQ 83
 QY 1 CADPRKQVVQ 10
 RESULT 8
 ID EOTA_CAVPO STANDARD: PRT: 96 AA.
 AC P80325;
 DT 01-JUN-1994 (REL. 29, CREATED)
 DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
 GN SCYAL1.
 OS CAVIA PORCELLUS (GUINEA PIG).
 CC EURAROTIA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-LUNG;
 RX MEDLINE: 95173589.
 RA ROTHENBERG M.E., LUSTER A.D., LILLY C.M., DRAZEN J.M., LEDER P.,
 RL J. EXP. MED. 181:1211-1216(1995).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 95091818.

RA JOSE P.J., ADCOCK I.M., GRIFFITHS-JOHNSON D.A., BERKMAN N.,
 RA WELLS T.C., WILLIAMS T.J., POWER C.A.,
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 205:788-794(1994).
 RN [3]
 RP SEQUENCE OF 24-96.
 RC STRAIN-HARTLEY; TISSUE-LUNG;
 RX MEDLINE: 94157409.
 RA JOSE P.J., GRIFFITHS-JOHNSON D.A., COLLINS P.D., WALSH D.T.,
 RA MOOBEY R., TOTTY N.F., TRUONG O., HSUAN J.J., WILLIAMS T.J.,
 RL J. EXP. MED. 179:881-887(1994).
 CC -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
 CC DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT
 CC FEATURE OF ALLERGIC INFLAMMATORY REACTIONS.
 CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
 CC -1- TISSUE SPECIFICITY: LONG.
 CC -1- PTM: O-GLYCOSYLATED (PROBABLE).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 CC EMBL: U18941; G687656; --.
 DR EMBL: X77603; G602552; --.
 DR HSSP: P13500; IMCA.
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 KW EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
 KW INFLAMMATORY RESPONSE.
 FT SIGNAL 1 23
 FT CHAIN 24 96
 FT DISULFID 31 56
 FT DISULFID 32 72
 FT CARBOHYD 93 93
 FT CONFLICT 88 88
 FT SEQUENCE 96 AA; 10753 MW; DD28C7E5 CRC32;
 SO
 Query Match 91.7%; Score 77; DB 1; Length 96;
 Best Local Similarity 90.0%; Pred. No. 2.39e-05;
 Matches 9; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
 Db 72 CADPREKVVQ 81
 QY 1 CADPRKQVVQ 10
 RESULT 9
 ID EOTA_HUMAN STANDARD: PRT: 97 AA.
 AC P51671; P50877; Q92490; Q92491;
 DT 01-OCT-1996 (REL. 34, CREATED)
 DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
 DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
 DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
 GN SCYAL1.
 OS HOMO SAPIENS (HUMAN).
 CC EURAROTIA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 96181758.
 RA GARCIA-ZEPEDA E.A., ROTHENBERG M.E., OMNBEY T.R., LEDER P.,
 RL LUSTER A.D.,
 RL NAT. MED. 2:449-456(1996).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 96189937.
 RA PONATH P.D., QIN S., RINGLER D.J., CLARK-LEWIS I., WANG J., KASSAM N.,
 RA SMITH H., SHI X., GONZALO J.A., NEWMAN W., GUTIERREZ-RAVOS J.C.,
 RA MACKAY C.R.,
 RL J. CLIN. INVEST. 97:604-612(1996).
 RN [3]
 RP SEQUENCE FROM N.A.
 RC TISSUE-SMALL INTESTINE;
 RX MEDLINE: 96205964.
 RA KITAHARA M., NAKAJIMA T., IMAI T., HARADA S., COMBADIERE C.,
 RA TIFFANY H.L., MURPHY P.M., YOSHIE O.,
 RL J. BIOL. CHEM. 271:7725-7730(1996).
 RN [4]

DR PROSITE: PS00472: SMALL_CYTOKINES_CC. 1.
KM EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
KW INFLAMMATORY RESPONSE.
FT SIGNAL 1 23 POTENTIAL.
FT CHAIN 24 97 EOTAXIN.
FT DISULFID 32 57 BY SIMILARITY.
FT DISULFID 33 73 BY SIMILARITY.
FT CARBOHYD 94 94 POTENTIAL.
FT CONFLICT 3 3 L -> S (IN REF. 2).
SQ SEQUENCE 97 AA: 10851 MW: 0584ED45 CRC32;

Query Match 91.7%; Score 77; DB 1; Length 97;
Best Local Similarity 90.0%; Pred. No. 2.39e-05;
Matches 9; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 73 CADPKKKWVQ 82
|||||
QY 1 CADPKKKWVQ 10

RESULT 12
ID MCP3_HUMAN STANDARD: PRT: 99 AA.
AC P80098;
DT 01-DEC-1992 (REL. 24, CREATED)
DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 3 PRECURSOR (MCP-3) (MONOCYTE
DE CHEMOTACTIC PROTEIN 3) (NC28).
GN SCYA7 OR MCP3.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; PRIMATES.
RN [1]
RP SEQUENCE FROM N.A., AND SEQUENCE OF 31-67 AND 71-99.
RX MEDLINE: 93213290.
RA OPEENAKKER G., FROYEN G., FITTEN P., PROOST P., VAN DAMME J.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 191:535-542(1993).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 94375065.
RA OPEENAKKER G., FITTEN P., NYS G., FROYEN G., VAN ROY N., SPELEMAN F.,
RA LAUREYS G., VAN DAMME J.;
RL GENOMICS 21:403-408(1994).
RN [3]
RP SEQUENCE FROM N.A.
RX MEDLINE: 93305913.
RA MINTY A., CHALON P., GUILLEMOT J.C., KAGHAD M., LIAUZUN P.,
RA MAGAZIN M., MILLOUX B., MINTY C., RAMOND P., VITA N., LUPKER J.,
RA SHRE D., FERRARA P., CAPUT D.;
RL EUR. CYTOKINE NETW. 4:99-110(1993).
RN [4]
RP SEQUENCE OF 30-99.
RC TISSUE-OSTEOSARCOMA;
RX MEDLINE: 92308855.
RA VAN DAMME J., PROOST P., LENAERTS J.-P., OPEENAKKER G.;
RL J. EXP. MED. 176:59-65(1992).
RN [5]
RP STRUCTURE BY NMR, AND SUBUNIT.
RX MEDLINE: 97053697.
RA KIM K.-S., RAJARATHNAM K., CLARK-LEWIS I., SYKES B.D.;
RL FEBS LETT. 395:277-282(1996).
RN [6]
RP STRUCTURE BY NMR.
RX MEDLINE: 97263733.
RA MEUNIER S., BERNASSAU J.-M., GUILLEMOT J.-C., FERRARA P., DARBON H.;
RL BIOCHEMISTRY 36:4412-4422(1997).
CC -I- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND
CC EOSINOPHILS, BUT NOT NEUTROPHILS. AUGMENTS MONOCYTE ANTI-TUMOR
CC ACTIVITY. ALSO INDUCES THE RELEASE OF GELATINASE B. THIS PROTEIN
CC CAN BIND HEPARIN.
CC -I- SUBUNIT: MONOMER.
CC -I- PTM: O-GLYCOSYLATED.
CC -I- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE

CC C-C) (CHEMOKINE CC).
DR EMBL: X72308; G313708; ALT_INIT.
DR EMBL: X72309; -, NOT_ANNOTATED_CDS.
DR EMBL: X71087; G288399; -.
DR EMBL: X71087; G288398; ALT_INIT.
DR EMBL: X71087; G288397; ALT_INIT.
DR PIR: JC1478; JC1478.
DR PIR: S32222; S32222.
DR PIR: A54678; A54678.
DR PDB: 1NCV; 15-OCT-97.
DR MM: 158106; -.
DR PROSITE: PS00472: SMALL_CYTOKINES_CC. 1.
KM CYTOKINE; CHEMOTAXIS; HEPARIN-BINDING; GLYCOPROTEIN; SIGNAL;
KW INFLAMMATORY RESPONSE; 3D-STRUCTURE.
FT SIGNAL 1 23 MONOCYTE CHEMOTACTIC PROTEIN 3.
FT CHAIN 24 99 PYROLIDONE CARBOXYLIC ACID.
FT MOD_RES 24 24 BY SIMILARITY.
FT DISULFID 34 59 BY SIMILARITY.
FT DISULFID 35 75 BY SIMILARITY.
FT CARBOHYD 29 29 POTENTIAL.
FT CONFLICT 30 30 T -> K (IN REF. 4).
FT CONFLICT 68 70 MISSING (IN REF. 4).
SQ SEQUENCE 99 AA: 11200 MW: 7502E19C CRC32;

Query Match 91.7%; Score 77; DB 1; Length 99;
Best Local Similarity 90.0%; Pred. No. 2.39e-05;
Matches 9; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 75 CADPKKKWVQ 84
|||||
QY 1 CADPKKKWVQ 10

RESULT 13
ID MCP2_PIG STANDARD: PRT: 99 AA.
AC P49873;
DT 01-OCT-1996 (REL. 34, CREATED)
DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
DE CHEMOTACTIC PROTEIN 2).
GN SCYA8 OR MCP2.
OS SUS SCROFA (PIG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; ARTIODACTYLA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 95091716.
RA HOSANG K.K., KNOKE I.I., KLAUDINY J.J., WEMPE F.F., WUTKE W.W.,
RA SCHEIT K.K.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 205:148-153(1994).
CC -I- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES. THIS PROTEIN
CC CAN BIND HEPARIN.
CC -I- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
CC -I- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: 248480; G683719; -.
DR PROSITE: PS00472: SMALL_CYTOKINES_CC. 1.
KM CYTOKINE; CHEMOTAXIS; SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE.
FT SIGNAL 1 23 BY SIMILARITY.
FT CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 2.
FT MOD_RES 24 24 PYROLIDONE CARBOXYLIC ACID (BY
FT DISULFID 34 59 BY SIMILARITY.
FT DISULFID 35 75 BY SIMILARITY.
SQ SEQUENCE 99 AA: 10903 MW: B7620BCF CRC32;

Query Match 91.7%; Score 77; DB 1; Length 99;
Best Local Similarity 90.0%; Pred. No. 2.39e-05;
Matches 9; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 75 CADPKKKWVQ 84
|||||

OY 1 CADPKOKWVQ 10

RESULT 14
ID MCP1_CAVPO STANDARD; PRT: 120 AA.
AC Q08782;
DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE
DE CHEMOKINE/ATTRACTANT PROTEIN-1).
TM SCY2A OR MCP1.
OS SCY2A PORCELUS (GUINEA PIG).
OC EURARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
RN EUTHERIA; RODENTIA.
RC [1]
RP SEQUENCE FROM N.A.
RC STRAIN-2; TISSUE-SPLEEN;
RX MEDLINE: 93267104.
RA YOSHIMURA T.;
RL J. IMMUNOL. 150:5025-5032(1993).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC NEUTROPHILS.
CC -1- SUBUNIT: MONOMER OR HOMODIMER, IN EQUILIBRIUM (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL; L04985; G349821; -.
DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
RW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
FT SIGNAL 1 23 BY SIMILARITY.
FT CHAIN 24 120 MONOCYTE CHEMOTACTIC PROTEIN 1.
FT MOD_RES 24 24 PYROLIDONE CARBOXYLIC ACID (BY
FT DISULFID 33 57 SIMILARITY).
FT DISULFID 34 73 BY SIMILARITY.
FT CARBOHYD 97 97 POTENTIAL.
SQ SEQUENCE 120 AA; 13741 MW; 22FAD257 CRC32;

Query Match 91.7%; Score 77; DB 1; Length 120;
Best Local Similarity 90.0%; Pred. No. 2,39e-05;
Matches 9; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 73 CADPKOKWVQ 82
OY 1 CADPKOKWVQ 10

RESULT 15
ID M1A_RAT STANDARD; PRT: 92 AA.
AC P50229;
DT 01-OCT-1996 (REL. 34, CREATED)
DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
DE MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA PRECURSOR (MIP-1-ALPHA).
TM SCY2A OR MIP1.
OS RATUS NORVEGICUS (RAT).
OC EURARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
RN EUTHERIA; RODENTIA.
RC [1]
RP SEQUENCE FROM N.A.
RC STRAIN-CD-1; TISSUE-LUNG;
RX MEDLINE: 95298037.
RA SHI M.M., GODLESKI J.J., PAULUSKIS J.D.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 211:289-295(1995).
RN [2]
RP SEQUENCE FROM N.A.
RC STRAIN-LONG EVANS; TISSUE-LUNG;
RX MEDLINE: 95238980.
RA SHANLEY T.P., SCHMAL H., FRIEDL H.P., JONES M.L., WARD P.A.;
RL J. IMMUNOL. 154:4793-4802(1995).
RN [3]
RP SEQUENCE OF 24-57.
RC STRAIN-WISTAR;

RX MEDLINE: 96183056.
RA MAKAGAMA H., SHIOYA S., TAKANO K., SHIBATA F., KATO H.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 220:945-948(1996).
CC -1- FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES.
CC HAS CHEMOTACTIC ACTIVITY FOR MONOCYTES, NEUTROPHILS, EOSINOPHILS,
CC BASOPHILS, AND LYMPHOCYTES. REQUIRED FOR LUNG TNF-ALPHA
CC PRODUCTION, NEUTROPHIL RECRUITMENT AND SUBSEQUENT LUNG INJURY AND
CC MAY FUNCTION AS AN AUTOCRINE MEDIATOR FOR THE MACROPHAGE
CC PRODUCTION OF TNF-ALPHA WHICH IN TURN UP-REGULATES VASCULAR
CC ADHESION MOLECULES REQUIRED FOR NEUTROPHIL INFILUX. THIS PROTEIN
CC BINDS HEPARIN.
CC -1- INDUCTION: BY LIPOPOLYSACCHARIDE (LPS).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL; U22414; G790633; -.
DR EMBL; U06435; G459150; -.
DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
RW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL; HEPARIN-BINDING.
FT SIGNAL 1 23
FT CHAIN 24 92
FT DISULFID 34 57 BY SIMILARITY.
FT DISULFID 35 73 BY SIMILARITY.
FT CONFLICT 6 6 A -> T (IN REF. 2).
FT CONFLICT 57 57 C -> W (IN REF. 2 AND 3).
SQ SEQUENCE 92 AA; 10335 MW; F48CF89F CRC32;

Query Match 86.9%; Score 73; DB 1; Length 92;
Best Local Similarity 80.0%; Pred. No. 2,03e-04;
Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 73 CADPKOKWVQ 82
OY 1 CADPKOKWVQ 10

RESULT 16
ID I18_CANFA STANDARD; PRT: 101 AA.
AC P41324;
DT 01-FEB-1995 (REL. 31, CREATED)
DT 01-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE)
DT 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
DE INTERLEUKIN-8 PRECURSOR (IL-8).
TM IL8.
OS CANIS FAMILIARIS (DOG).
OC EURARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
RN EUTHERIA; CARNIVORA.
RC [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 94010328.
RA ISHIKAWA J., SUZUKI S., HOTTA K., HIROTA Y., MIZUNO S., SUZUKI K.;
RL GENE 131:305-306(1993).
RN [2]
RP SEQUENCE FROM N.A.
RC TISSUE-LYMPH NODE;
RX MEDLINE: 95127913.
RA MAISONOTO Y., MOHAMED A., ONODERA T., KATO H., OHASHI T.,
RA GOTSUKA R., TSUJIMOTO H., HASEGAWA A., FURUSAWA S., YOSHIMURA K.,
RA ISHIKAWA J., HOTTA K., SUZUKI K., HIROTA Y.;
RL CYTOKINE 6:455-461(1994).
RN [3]
RP SEQUENCE FROM N.A.
RC STRAIN-MONGREL; TISSUE-JUGULAR VEIN;
RX MEDLINE: 95114148.
RA KUKIELKA G.L., SMITH W.C., LAROSA G.J., MANNING A.M.,
RA MENDOZA L.H., DALY T.J., HUGHES B.J., YOUNER K.A., HAWKINS H.K.,
RA MICHAEL L.H., ROT A., ENTMAN M.L.;
RL J. CLIN. INVEST. 95:89-103(1994).
CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
CC BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
CC RESPONSE TO AN INFLAMMATORY STIMULUS.
CC -1- SUBUNIT: HOMODIMER.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE

RP SEQUENCE FROM N.A., AND SEQUENCE OF 26-45.
 RC TISSUE-LUNG:
 RX MEDLINE: 93041741.
 RA GOODMAN R.B., FOSTER D.C., MATHEWS S.L., OSBORN S.G., KUIPERS J.L.,
 RA FORSTROM J.W., MARTIN T.R.;
 RL BIOCHEMISTRY 31:10483-10490(1992).
 RN [4]
 RP REVISION TO 23.
 RA GOODMAN R.B.;
 RL SUBMITTED (MAR-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [5]
 RP SEQUENCE OF 26-45.
 RC STRAIN-YORKSHIRE;
 RX MEDLINE: 91217086.
 RA GOODMAN R.B., FORSTROM J.W., OSBORN S.G., CHI E.Y., MARTIN T.R.;
 RL J. BIOL. CHEM. 266:8435-8463(1991).
 CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
 CC BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
 CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
 CC RESPONSE TO AN INFLAMMATORY STIMULUS.
 CC -1- SUBUNIT: HOMODIMER.
 CC -1- TISSUE SPECIFICITY: ALVEOLAR MACROPHAGES.
 CC -1- INDUCTION: BY LIPOPOLYSACCHARIDE.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
 CC C-X-C) (CHEMOKINE CXC).
 DR EMBL: M86923; G164521; -;
 DR EMBL: X61151; G516197; -;
 DR EMBL: M93677; G1235612; -;
 DR PIR: A44253; A44253.
 DR PIR: A39819; A39819.
 DR HSSP: P10145; 31L8.
 DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; 1.
 KM CYTOKINE; CHEMOKINE; INFLAMMATORY RESPONSE; SIGNAL.
 FT SIGNAL 1 25
 FT CHAIN 26 103
 FT DISULFID 34 61
 FT DISULFID 36 77
 FT DISULFID 33 34
 FT CONFLICT 87 87
 FT CONFLICT 87 87
 SQ SEQUENCE 103 AA; 11633 MW; A012D59D CRC32;
 Query Match 86.9%; Score 73; DB 1; Length 103;
 Best Local Similarity 80.0%; Pred. No. 2.03e-04;
 Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
 Db 77 CLDPKRWVQ 86
 1 111111111
 QY 1 CADPKRWVQ 10
 RESULT 20
 ID MCP5_MOUSE STANDARD; PRT; 104 AA.
 AC 062401;
 DT 01-NOV-1997 (REL. 35, CREATED)
 DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 5 PRECURSOR (MCP-5) (MCP-1 RELATED
 DE CHEMOKINE).
 CC SCYLA2 OR MCP5.
 CC MUS MUSCULUS (MCP5).
 CC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUTHERIA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 97079149.
 RA JIA G.-Q., GONZALO J.A., LLOYD C., KREMER L., LU L., MARTINEZ A.C.,
 RA WERSHIL B.K., GUTIERREZ-RAMOS J.C.;
 RL J. EXP. MED. 184:1939-1951(1996).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 97149438.
 RA SARAFI M.N., GARCIA-ZEPEDA E.A., MACLEAN J.A., CHARO I.F.,
 RA LUSTER A.D.;

RL J. EXP. MED. 185:99-109(1997).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS EOSINOPHILS, MONOCYTES,
 CC AND LYMPHOCYTES BUT NOT NEUTROPHILS. POTENT MONOCYTE ACTIVE
 CC CHEMOKINE THAT SIGNALS THROUGH CCR2. INVOLVED IN ALLERGIC
 CC INFLAMMATION AND THE HOST RESPONSE TO PATHOGENS AND MAY PLAY A
 CC PIVOTAL ROLE DURING EARLY STAGES OF ALLERGIC LUNG INFLAMMATION.
 CC -1- SUBUNIT: HOMODIMER (BY SIMILARITY).
 CC -1- TISSUE SPECIFICITY: PREDOMINANTLY EXPRESSED IN THE LYMPH NODES AND
 CC THYMUS. ALSO FOUND IN THE SALIVARY GLANDS CONTAINING LYMPH NODES,
 CC BREAST, HEART, LUNG, BRAIN, SMALL INTESTINE, KIDNEY AND COLON.
 CC -1- INDUCTION: BY IFN-GAMMA AND LIPOPOLYSACCHARIDE (LPS).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL: U50712; G1477582; -;
 DR EMBL: U6670; G1881583; -;
 DR MGI: M10824; SCYLA2.
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 KM CYTOKINE; CHEMOKINE; SIGNAL; INFLAMMATORY RESPONSE.
 FT SIGNAL 1 22
 FT CHAIN 23 104
 FT DISULFID 33 58
 FT DISULFID 34 74
 SQ SEQUENCE 104 AA; 11659 MW; 08FA6C35 CRC32;
 Query Match 86.9%; Score 73; DB 1; Length 104;
 Best Local Similarity 88.9%; Pred. No. 2.03e-04;
 Matches 8; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
 Db 74 CADPKRWV 82
 1 111111111
 QY 1 CADPKRWV 9
 RESULT 21
 ID MIP4_HUMAN STANDARD; PRT; 89 AA.
 AC P55774;
 DT 01-NOV-1997 (REL. 35, CREATED)
 DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MACROPHAGE INFLAMMATORY PROTEIN 4 PRECURSOR (MIP-4) (PULMONARY AND
 DE ACTIVATION-REGULATED CHEMOKINE) (CC CHEMOKINE PARC) (ALTERNATIVE
 DE ACTIVATED MACROPHAGE ASSOCIATED CC CHEMOKINE 1) (AMAC-1).
 GN SCYLA8 OR MIP4.
 OS HOMO SAPIENS (HUMAN).
 CC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUTHERIA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA LI H., RUBEN S.;
 RL PATENT NUMBER US5504003.
 RN [2]
 RP SEQUENCE FROM N.A., AND PARTIAL SEQUENCE.
 RC TISSUE-AORTA, AND LUNG;
 RX MEDLINE: 97376836.
 RA HIESHIMA K., IMAI T., BABA M., SHODAI K., ISHIZUKA K.,
 RA NAKAGAWA T., TSURUTA J., TAKEYA M., SAKAKI Y., TAKATSUKI K.,
 RA MURA R., ODENAKKE G., VAN DAMME J., YOSHIE O., NOMIYAMA H.;
 RL J. IMMUNOL. 159:1140-1149(1997).
 RN [3]
 RP SEQUENCE FROM N.A.
 RA KODELA V., MUELLER C., POLITZ O., HAKIT N., OREANOS C.E., GOERDT S.;
 RL SUBMITTED (AUG-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [4]
 RP DISCUSSION OF SEQUENCE.
 RX MEDLINE: 97275308.
 RA WELLS T.N.C., PEITSCH M.C.;
 RL J. LEUKOC. BIOL. 61:545-550(1997).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS LYMPHOCYTES BUT NOT
 CC MONOCYTES OR GRANULOCYTES. MAY BE INVOLVED IN B CELL MIGRATION
 CC INTO B CELL FOLLICLES IN LYMPH NODES.
 CC -1- TISSUE SPECIFICITY: EXPRESSED AT HIGH LEVELS IN THE LUNG. A LOWER
 CC LEVEL EXPRESSION IS SEEN IN LYMPHOID TISSUES SUCH AS LYMPH NODES,
 CC THYMUS AND APPENDIX.

CC -1- INDUCTION: BY LIPOPOLYSACCHARIDE (LPS).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
DR EMBL: AB000221; D1022520; -.
DR EMBL: Y13710; E321838; -.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
FT SIGNAL 1 20
FT CHAIN 21 89
FT DISULFID 30 54
FT DISULFID 31 70
SQ SEQUENCE 89 AA; 9849 MW; 052AA3DC CRC32;
Query Match 84.5%; Score 71; DB 1; Length 89;
Best Local Similarity 80.0%; Pred. No. 5.81e-04;
Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
Db 70 CADPKKKWQ 79
QY 1 CADPKKKWQ 10
RESULT 22
ID MCP2_HUMAN STANDARD; PRT; 99 AA.
AC P80075; P78388;
DT 01-DEC-1992 (REL. 24, CREATED)
DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
CHEMOTACTIC PROTEIN 2) (HC14).
OS SCY48 OR SCY40 OR MCP2.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; PRIMATES.
RN [1]
RP SEQUENCE FROM N.A., AND VARIANT GLN-69.
RX MEDLINE: 97237052.
RA VAN COILLIE E., FITTEN P., NOMIYAMA H., SAKAKI Y., MIURA R., YOSHIE O.,
VAN DAME J., OPDENAKKER G.;
RL GENOMICS 40:323-331(1997).
RN [2]
RP SEQUENCE FROM N.A., AND VARIANT GLN-69.
RX TISSUE-BONE MARROW;
RC MEDLINE: 97224420.
RA VAN COILLIE E., FROYEN F., NOMIYAMA H., MIURA R., FITTEN P.,
VAN AELST I., VAN DAME J., OPDENAKKER G.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 231:726-730(1997).
RN [3]
RP SEQUENCE OF 23-99 FROM N.A.
RX MEDLINE: 91207938.
RA CHANG H.C., HSU F., FREEMAN G.J., GRIFFIN J.D., REINHERZ E.L.;
RL INT. IMMUNOL. 1:388-399(1989).
RN [4]
RP SEQUENCE OF 26-99.
RX TISSUE-OSTEOSARCOMA;
RC MEDLINE: 92308855.
RA VAN DAME J., PROOST P., LENAERTS J.-P., OPDENAKKER G.;
RL J. EXP. MED. 176:59-65(1992).
RN [5]
RP SUBUNIT.
RX MEDLINE: 97053697.
RA KIM K.-S., RAJAKATHANAM K., CLARK-LEWIS I., SYKES B.D.;
RL FEBS LETT. 395:277-282(1996).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, LYMPHOCYTES,
BASOPHILS AND EOSINOPHILS. MAY PLAY A ROLE IN NEOPLASIA AND
INFLAMMATORY HOST RESPONSES. THIS PROTEIN CAN BIND HEPARIN.
CC -1- SUBUNIT: MONOMER OR HOMODIMER, IN EQUILIBRIUM.
CC -1- TISSUE SPECIFICITY: HIGHEST EXPRESSION FOUND IN THE SMALL
INTESTINE AND PERIPHERAL BLOOD CELLS. INTERMEDIATE LEVELS SEEN IN
THE HEART, PLACENTA, LUNG, SKELETAL MUSCLE, THYMUS, COLON, OVARY,
SPINAL CORD AND PANCREAS. LOW LEVELS SEEN IN THE BRAIN, LIVER,
SPLEEN AND PROSTATE.
CC -1- INDUCTION: BY INTERFERON GAMMA, MITOGENS AND INTERLEUKIN-1.

CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
DR EMBL: X99886; E279350; ALT_INIT.
DR EMBL: Y10802; E294088; -.
DR HSSP: P13500; IMCA.
DR MM: 602283; -.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE;
KM POLYMORPHISM.
FT SIGNAL 1 23
FT CHAIN 24 99
FT MOD_RES 24 24
FT DISULFID 34 59
FT DISULFID 35 75
FT VARIANT 69 69
SQ SEQUENCE 99 AA; 11246 MW; 5DD5C20 CRC32;
Query Match 84.5%; Score 71; DB 1; Length 99;
Best Local Similarity 70.0%; Pred. No. 5.81e-04;
Matches 7; Conservative 3; Mismatches 0; Indels 0; Gaps 0;
Db 75 CADPKKKWQ 84
QY 1 CADPKKKWQ 10
RESULT 23
ID IL8_BOVIN STANDARD; PRT; 101 AA.
AC P79255;
DT 01-NOV-1997 (REL. 35, CREATED)
DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
DE INTERLEUKIN-8 PRECURSOR (IL-8).
GN IL8.
OS BOS TAURUS (BOVINE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; ARTIODACTYLA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 96304552.
RA MORSEY M.A., POPOWYCH Y., KOWALSKI J., GERLACH G., GODSON D.,
RA CAMPOS M., BABIK L.A.;
RL MICROB. PATHOG. 20:203-212(1996).
CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
RESPONSE TO AN INFLAMMATORY STIMULUS (BY SIMILARITY).
CC -1- SUBUNIT: HOMODIMER (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
C-X-C) (CHEMOKINE CXC).
DR EMBL: S82598; G1699354; -.
DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; 1.
KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
FT SIGNAL 1 22
FT CHAIN 23 101
FT DISULFID 34 61
FT DISULFID 36 77
SQ SEQUENCE 101 AA; 11291 MW; 0E39C526 CRC32;
Query Match 83.3%; Score 70; DB 1; Length 101;
Best Local Similarity 70.0%; Pred. No. 9.79e-04;
Matches 7; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
Db 77 CLNPKKKWQ 86
QY 1 CADPKKKWQ 10
RESULT 24
ID IL8_CAVPO STANDARD; PRT; 101 AA.
AC P49113;
DT 01-FEB-1996 (REL. 33, CREATED)
DT 01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)

DT 01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
DE INTERLEUKIN-8 PRECURSOR (IL-8) (NEUTROPHIL ATTRACTANT PROTEIN 1)
GN (NAP-1).
OS CAVIA PORCELLUS (GUINEA PIG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=SPLN;
RX MEDLINE: 94065176.
RA YOSHIMURA T., JOHNSON D.G.;
RL J. IMMUNOL. 151:6225-6236(1993).
CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
RESPONSE TO AN INFLAMMATORY STIMULUS (BY SIMILARITY).
CC -1- SUBUNIT: HOMODIMER (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
C-X-C) (CHEMOKINE CXC).
DR EMBL: L04986; G459765; -.
DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; 1.
KM CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
FT SIGNAL 1 22 BY SIMILARITY.
FT CHAIN 23 101 INTERLEUKIN-8.
FT DISULFID 34 61 BY SIMILARITY.
FT DISULFID 36 77 BY SIMILARITY.
SQ SEQUENCE 101 AA; 11414 MW; E13F521 CRC32;

Query Match 83.3%; Score 70; DB 1; Length 101;
Best Local Similarity 80.0%; Pred. No. 9.79e-04;
Matches 8; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Db 77 CLDPKRWQ 86
1 11111111
1 CADPKRWQ 10
OY

RESULT 25
ID MCPB_BOVIN STANDARD; PRT; 74 AA.
AC P80343;
DT 01-FEB-1995 (REL. 31, CREATED)
DT 01-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1B (MCP-1B) (FRAGMENT).
OS BOS TAURUS (BOVINE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; ARTIODACTYLA.
RN [1]
RP SEQUENCE.
RC TISSUE=KIDNEY;
RX MEDLINE: 95034774.
RA PROOST P., WUYTS A., LENAERTS J.-P., VAN DAMME J.;
RL BIOCHEMISTRY 33:13406-13412(1994).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
NEUTROPHILS. AUGMENTS MONOCYTE ANTI-TUMOR ACTIVITY. ALSO INDUCES
THE RELEASE OF GELATINASE B. THIS PROTEIN CAN BIND HEPARIN.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KM CYTOKINE; CHEMOTAXIS; HEPARIN-BINDING.
FT NON_TER 1 1
FT DISULFID 9 34 BY SIMILARITY.
FT DISULFID 10 50 BY SIMILARITY.
SQ SEQUENCE 74 AA; 8360 MW; 66172F08 CRC32;

Query Match 82.1%; Score 69; DB 1; Length 74;
Best Local Similarity 70.0%; Pred. No. 1.64e-03;
Matches 7; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 50 CAEPKXWQ 59
1 11111111

OY 1 CADPKRWQ 10
RESULT 26
ID MCP1_MOUSE STANDARD; PRT; 148 AA.
AC P10148;
DT 01-MAR-1989 (REL. 10, CREATED)
DT 01-MAR-1989 (REL. 10, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (PLATELET-DERIVED
GROWTH FACTOR-INDUCIBLE PROTEIN 1).
GN SCY2 OR MCP1 OR JE.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 89093129.
RA KAWAHARA R.S., DEUEL T.F.;
RL J. BIOL. CHEM. 264:679-682(1989).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 88234501.
RA ROLLINS B.J., MORRISON E.D., STILES C.D.;
RL PROC. NATL. ACAD. SCI. U.S.A. 85:3738-3742(1988).
RN [3]
RP SEQUENCE OF 26-42.
RX MEDLINE: 91293127.
RA VAN DAMME J., DECOCK B., BERTINI R., CONINGS R., LENAERTS J.-P.,
RA PUT W., OPDENAKKER G., MANTOVANI A.;
RL EUR. J. BIOCHEM. 199:223-229(1991).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
NEUTROPHILS.
CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
CC -1- INDUCTION: BY PLATELET-DERIVED GROWTH FACTOR.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
DR EMBL: J04467; G387169; -.
DR EMBL: M19681; G387168; -.
DR PIR: A30209; A30209.
DR PIR: A30861; A30861.
DR PIR: S16226; S16226.
DR HSSP: P13500; 1MCA.
DR MGD; MGI:98259; SCTA2.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KM CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
FT SIGNAL 1 23 BY SIMILARITY.
FT CHAIN 24 148 MONOCYTE CHEMOTACTIC PROTEIN 1.
FT MOD_RES 24 24 PYROLIDONE CARBOXYLIC ACID (BY
SIMILARITY).
FT DISULFID 34 59 BY SIMILARITY.
FT DISULFID 35 75 BY SIMILARITY.
FT CARBOHYD 126 126 POTENTIAL.
SQ SEQUENCE 148 AA; 16326 MW; B7572BBC CRC32;

Query Match 82.1%; Score 69; DB 1; Length 148;
Best Local Similarity 80.0%; Pred. No. 1.64e-03;
Matches 8; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Db 75 CADPKRWQ 84
1 11111111
1 CADPKRWQ 10
OY

RESULT 27
ID SPFL_MOUSE STANDARD; PRT; 89 AA.
AC P40224;
DT 01-FEB-1995 (REL. 31, CREATED)
DT 01-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE)
DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
DE STROMAL CELL-DERIVED FACTOR 1 PRECURSOR (SDF-1) (PRE-B CELL GROWTH
STIMULATING FACTOR) (PBSE) (12-O-TETRADECANOYLPHORBOL 13-ACETATE
REPRESSOR PROTEIN 1) (TPAR1) (THYMIC LYMPHOMA CELL STIMULATING FACTOR)

DE (TUSF).
GN SDF1.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 94181581.
RA NAGASAWA T., KIKUTANI H., KISHIMOTO T.,
RL PROC. NATL. ACAD. SCI. U.S.A. 91:2305-2309(1994).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 93342488.
RA TASHIRO K., TADA H., HEILKER R., SHIROZU M., NAKANO T., HONJO T.,
RL SCIENCE 261:600-603(1993).
RN [3]
RP SEQUENCE FROM N.A.
RX MEDLINE: 95073497.
RA JIANG W., ZHOU P., KAHN S.M., TOMITA N., JOHNSON M.D.,
RL EXP. CELL RES. 215:284-293(1994).
RN [4]
RP SEQUENCE FROM N.A.
RC STRAIN-AKR/J;
RA NOMURA M., NAKATA Y., UZAMA A., NOSE M., AKASHI M., SUZUKI G.,
RL SUBMITTED (DEC-1994) TO EMBL/GENBANK/DBJ DATA BANKS.
CC -1- FUNCTION: CHEMOTACTANT ACTIVE ON T-LYMPHOCYTES, MONOCYTES, BUT
CC NOT NEUTROPHILS.
CC -1- FUNCTION: STIMULATES THE PROLIFERATION OF BONE MARROW-DERIVED B
CC PROGENITOR CELLS IN THE PRESENCE OF IL-7 AS WELL AS GROWTH OF THE
CC STROMAL CELL-DEPENDENT B-CELL CLONE DM34 CELLS.
CC -1- ALTERNATIVE PRODUCTS: TWO DIFFERENT FORMS (ALPHA AND BETA) ARE
CC PROBABLY GENERATED BY ALTERNATIVE SPLICING.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
CC C-X-C) (CHEMOKINE CXCL).
DR EMBL: D21072; G468457; -.
DR EMBL: L12029; G393180; -.
DR EMBL: L12030; G393182; -.
DR EMBL: S74318; G786394; -.
DR EMBL: D43804; G1304174; -.
DR EMBL: D43805; G1304175; -.
DR PIR: A53497; A53497.
DR MGD: MGI:103556; SDF1.
DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; FALSE_NEG.
KW CYTOKINE; CHEMOTAXIS; GROWTH FACTOR; SIGNAL; ALTERNATIVE SPLICING.
FT SIGNAL 1 19
FT CHAIN 20 89
FT DISULFID 30 55
FT DISULFID 32 71
FT VARSPLIC 89 89
SQ SEQUENCE 89 AA: 10032 MW: 22204E52 CRC32;

Query Match 79.8%; Score 67; DB 1; Length 89;
Best Local Similarity 70.0%; Pred. No. 4.57e-03;
Matches 7; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 71 CIDPRKXWQ 80
QY 1 CADPRKXWQ 10

RESULT 28
ID SDF1_HUMAN STANDARD; PRT; 93 AA.
AC P48061;
DT 01-FEB-1996 (REL. 33, CREATED)
DT 01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE STROMAL CELL-DERIVED FACTOR 1 PRECURSOR (SDF-1) (PRE-B CELL GROWTH
DE STIMULATING FACTOR) (PBSF).
GN SDF1.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; PRIMATES.

RN [1]
RP SEQUENCE FROM N.A.
RA SPOTILIA L.D.;
RL SUBMITTED (OCT-1994) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 96039262.
RA SHIROZU M., NAKANO T., INAZAWA J., TASHIRO K., TADA H.,
RA SHINOHARA T., HONJO T.,
RL GENOMICS 28:495-500(1995).
RN [3]
RP STRUCTURE BY NMR OF 22-88.
RX MEDLINE: 98046030.
RA CRUMP M.P., GONG J.H., LOETSCHER P., RAJARATHNAM K., AMARA A.,
RA ARENZANA-SEISDEDOS F., VIRELIZIER J.L., BAGGIOLINI M., SYKES B.D.,
RA CLARK-LEWIS I.,
RL EMBO J. 16:6996-7007(1997).
CC -1- FUNCTION: CHEMOTACTANT ACTIVE ON T-LYMPHOCYTES, MONOCYTES, BUT
CC NOT NEUTROPHILS.
CC -1- ALTERNATIVE PRODUCTS: TWO DIFFERENT FORMS (ALPHA AND BETA) ARE
CC PROBABLY GENERATED BY ALTERNATIVE SPLICING.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
CC C-X-C) (CHEMOKINE CXCL).
DR EMBL: U16752; G571508; -.
DR EMBL: U36033; G1220366; -.
DR PDB: 1SDF; 28-JAN-98.
DR PDB: 2SDF; 17-JUN-98.
DR MIM: 600835; -.
DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; FALSE_NEG.
KW CYTOKINE; CHEMOTAXIS; GROWTH FACTOR; SIGNAL; ALTERNATIVE SPLICING;
KW 3D-STRUCTURE.
FT SIGNAL 1 19
FT CHAIN 20 93
FT DISULFID 30 55
FT DISULFID 32 71
SQ SEQUENCE 93 AA: 10666 MW: 4B9911C7 CRC32;

Query Match 79.8%; Score 67; DB 1; Length 93;
Best Local Similarity 70.0%; Pred. No. 4.57e-03;
Matches 7; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 71 CIDPRKXWQ 80
QY 1 CADPRKXWQ 10

RESULT 29
ID M13A_HUMAN STANDARD; PRT; 96 AA.
AC P78556;
DT 01-NOV-1997 (REL. 35, CREATED)
DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MACROPHAGE INFLAMMATORY PROTEIN 3 ALPHA PRECURSOR (MIP-3-ALPHA) (LIVER
DE AND ACTIVATION-REGULATED CHEMOKINE) (CC CHEMOKINE LARC).
GN SCVA20 OR MIP3A OR LARC.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; PRIMATES.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 97166046.
RA ROSSI D.L., VICARI A.P., FRANZ-BACON K., MCCLANAHAN T.K., ZLOTNIK A.,
RL J. IMMUNOL. 158:1033-1036(1997).
RN [2]
RP SEQUENCE FROM N.A., AND PARTIAL SEQUENCE.
RC TISSUE-LIVER;
RX MEDLINE: 97190319.
RA HIESHIMA K., IMAI T., OPDENAKKER G., VAN DAMME J., KUSUDA J.,
RA TEI H., SAKAKI Y., TAKATSUKI K., MIURA R., YOSHIE O., NOMIYAMA H.,
RL J. BIOL. CHEM. 272:5846-5853(1997).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS LYMPHOCYTES AND,
CC SLIGHTLY, NEUTROPHILS, BUT NOT MONOCYTES.
CC -1- TISSUE SPECIFICITY: EXPRESSED PREDOMINANTLY IN THE LIVER, LYMPH

CC NODES, APPENDIX, PBL, AND FETAL LUNG. LOW LEVELS SEEN IN THYMUS,
 CC PROSTATE, TESTIS, SMALL INTESTINE AND COLON.
 CC -1- INDUCTION: BY LIPOPOLYSACCHARIDE (LPS) AND GAMMA-IFN. REPRESSED BY
 CC IL-10.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 CC EMBL: U77035; G1790925; -;
 CC DR PROSITE: PS00472; SMALL CYTOKINES; CC: 1.
 CC DR CYTOKINE; CHEMOKINE; INFLAMMATORY RESPONSE; SIGNAL.
 CC FT SIGNAL 1 26
 CC FT CHAIN 27 96 MACROPHAGE INFLAMMATORY PROTEIN 3 ALPHA.
 CC FT DISULFID 32 58 BY SIMILARITY.
 CC FT DISULFID 33 74 BY SIMILARITY.
 CC SQ SEQUENCE 96 AA; 10762 MM; DBAC0235 CRC32;
 Query Match 79.8%; Score 67; DB 1; Length 96;
 Best Local Similarity 77.8%; Pred. No. 4.57e-03;
 Matches 7; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 74 CANPROTV 82
 11:111111
 QY 1 CADPROKMY 9

RESULT 30
 ID IL8_HUMAN STANDARD: PRT; 99 AA.
 AC P10145;
 DT 01-MAR-1989 (REL. 10, CREATED)
 DT 01-MAR-1989 (REL. 10, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE INTERLEUKIN-8 PRECURSOR (IL-8) (MONOCYTE-DERIVED NEUTROPHIL
 DE CHEMOTACTIC FACTOR) (MNCF) (T-CELL CHEMOTACTIC FACTOR) (NEUTROPHIL-
 DE ACTIVATING PROTEIN 1) (NAP-1) (LYMPHOCYTE-DERIVED NEUTROPHIL-
 DE FACTOR) (NAF) (GRANULOCYTE CHEMOTACTIC PROTEIN 1) (GCP-1) (EMOCTAKIN).
 GN IL8.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUHERIA; PRIMATES.
 RN (1)
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 88258376.
 RA MATSUSHIMA K., MORISHITA K., YOSHIMURA T., LAVU S., KOBAYASHI Y.,
 RA LEM W., APPELLA E., KUNG H., LEONARD E.J., OPPENHEIM J.J.;
 RN J. EXP. MED. 167:1883-1893(1988).
 RN (2)
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 87224164.
 RA SCHMID J., WEISSMANN C.;
 RN J. IMMUNOL. 139:250-256(1987).
 RN (3)
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 89313739.
 RA KOWALSKI J., DENHARDT D.T.;
 RN MOL. CELL. BIOL. 9:1946-1957(1989).
 RN (4)
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 89309826.
 RA MUKAIDA N., SHIROO M., MATSUSHIMA K.;
 RN J. IMMUNOL. 143:1366-1371(1989).
 RN (5)
 RP SEQUENCE FROM N.A.
 RA ISHIKAWA J.;
 RN SUBMITTED (JAN-1993) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN (6)
 RP SEQUENCE OF 23-46.
 RX MEDLINE: 89246368.
 RA GOLDS E.E., MASON P., NYIKOS P.;
 RN BIOCHEM. J. 259:585-588(1989).
 RN (7)
 RP SEQUENCE OF 23-54.
 RX MEDLINE: 89279141.

RA SUZUKI K., MIYASAKA H., OTA H., YAMAKAWA Y., TAGAWA M., KURAMOTO A.,
 RA MIZUNO S.;
 RN J. EXP. MED. 169:1895-1901(1989).
 RN (8)
 RP SEQUENCE OF 28-99.
 RX MEDLINE: 88162914.
 RA GREGORY H., YOUNG J., SCHROEDER J.M., MROWIETZ U., CHRISTOPHERS E.;
 RN BIOCHEM. BIOPHYS. RES. COMMUN. 151:883-890(1988).
 RN (9)
 RP SEQUENCE OF 28-59.
 RX MEDLINE: 88106502.
 RA WALZ A., PEVERI P., ASCHAUER H., BAGGIOLINI M.;
 RN BIOCHEM. BIOPHYS. RES. COMMUN. 149:755-761(1987).
 RN (10)
 RP SEQUENCE OF 28-69.
 RX MEDLINE: 88097462.
 RA YOSHIMURA T., MATSUSHIMA K., TANAKA S., ROBINSON E.A., APPELLA E.,
 RA OPPENHEIM J.J., LEONARD E.J.;
 RN PROC. NATL. ACAD. SCI. U.S.A. 84:9233-9237(1987).
 RN (11)
 RP STRUCTURE BY NMR.
 RX MEDLINE: 90234679.
 RA CLORE G.M., APPELLA E., YAMADA M., MATSUSHIMA K., GRONENBORN A.M.;
 RN BIOCHEMISTRY 29:1689-1696(1990).
 RN (12)
 RP X-RAY CRYSTALLOGRAPHY (1.6 ANGSTROMS).
 RX MEDLINE: 90216714.
 RA BALDWIN E.T., FRANKLIN K.A., APPELLA E., YAMADA M., MATSUSHIMA K.,
 RA WLODAWER A., WEBER I.T.;
 RN J. BIOL. CHEM. 265:6851-6853(1990).
 RN (13)
 RP X-RAY CRYSTALLOGRAPHY, AND STRUCTURE BY NMR.
 RX MEDLINE: 91171286.
 RA CLORE G.M., GRONENBORN A.M.;
 RN J. MOL. BIOL. 217:611-620(1991).
 RN (14)
 RP X-RAY CRYSTALLOGRAPHY (1.6 ANGSTROMS), AND STRUCTURE BY NMR.
 RX MEDLINE: 91110556.
 RA BALDWIN E.T., WEBER I.T., ST CHARLES R., XUAN J.C., APPELLA E.,
 RA YAMADA M., MATSUSHIMA K., EDWARDS B.F., CLORE G.M., GRONENBORN A.M.;
 RN PROC. NATL. ACAD. SCI. U.S.A. 88:502-506(1991).
 RN (15)
 RP N-TERMINAL FORMS.
 RX MEDLINE: 91006326.
 RA VAN DAMME J., RAMPART M., CONING R., DECOCK B., VAN OSSELAER N.,
 RA WILLEMS J., BILLIAU A.;
 RN EUR. J. IMMUNOL. 20:2113-2118(1990).
 RN (16)
 RP N-TERMINAL FORMS.
 RX MEDLINE: 89231715.
 RA VAN DAMME J., VAN BEEDEN J., CONINGS R., DECOCK B., BILLIAU A.;
 RN EUR. J. BIOCHEM. 181:337-344(1989).
 RN (17)
 RP SYNTHESIS OF 28-99.
 RX MEDLINE: 91175767.
 RA CLARK-LEWIS I., MOSE B., WALZ A., BAGGIOLINI M., SCOTT G.J.,
 RA AEBERSOLD R.;
 RN BIOCHEMISTRY 30:3128-3135(1991).
 RN (18)
 RP REVIEW.
 RX MEDLINE: 92347562.
 RA BAGGIOLINI M., CLARK-LEWIS I.;
 RN FEBS LETT. 307:97-101(1992).
 CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
 CC BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
 CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
 CC RESPONSE TO AN INFLAMMATORY STIMULUS.
 CC -1- SUBUNIT: HOMODIMER.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
 CC C-X-C) (CHEMOKINE CXCL).
 CC EMBL: Y00787; G34519; -;
 DR EMBL: M17017; G179580; -;
 DR EMBL: M26383; G188628; -;

DR EMBL: M28130; G186368; -;
DR EMBL: D14283; G219916; -;
DR PIR: A37034; A37034.
DR PIR: S03975; S03975.
DR PIR: S04216; S04216.
DR PDB: 1IL8; 15-JAN-91.
DR PDB: 2IL8; 15-JAN-91.
DR PDB: 3IL8; 15-OCT-92.
DR PDB: 1ICW; 12-MAR-97.
DR PDB: 1IKL; 15-OCT-95.
DR PDB: 1IKM; 15-OCT-95.
DR MIM: 146930; -;
DR PROSITE: PS00471; SMALL CYTOKINES CXC; 1.
DR CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL; 3D-STRUCTURE.
KM SIGNAL 1 22
FT CHAIN 23 99 INTERLEUKIN-8.
FT PROPEP 23 30 ONE OR MORE OF THESE RESIDUES ARE MISSING
IN SOME MATURE FORMS OF IL-8.
FT DISULFID 34 61 R -> L (IN REF. 7).
FT DISULFID 36 77
FT CONFLICT 53 53
FT HELIX 46 48
FT STRAND 49 55
FT STRAND 58 58
FT TURN 59 60
FT STRAND 61 61
FT STRAND 65 70
FT TURN 71 72
FT STRAND 75 78
FT TURN 80 81
FT HELIX 83 97
FT TURN 98 98
SQ SEQUENCE 99 AA: 11098 MW: 89D1891F CRC32;
Query Match 79.8%; Score 67; DB 1; Length 99;
Best Local Similarity 70.0%; Pred. No. 4,57e-03;
Matches 7; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 77 CDDPKENWVQ 86
QY 1 CADPKOKWVQ 10

Search completed: Thu Apr 1 07:26:01 1999
Job time : 11 secs.

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94 49 58.3 582.5 023909 PUTATIVE RNA HELICASE
95 49 58.3 766.10 023538 RESISTANCE GENE HOMOLO
96 49 58.3 823.4 075076 MDC2 BETA.
97 49 58.3 859.4 075075 MDC2 ALPHA.
98 49 58.3 1032.11 062780 RNA HELICASE.
99 49 58.3 1076.5 026154 V-SEB 3.
100 49 58.3 2467.10 023535 RESISTANCE GENE HOMOLO

ALIGNMENTS

RESULT 1
ID 035933 PRELIMINARY; PRT; 395 AA.
AC 035933:
DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE FRACTALKINE.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
SCUROGNATHI; MURIDAE; MURINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-BALB/C; TISSUE-BRAIN;
RA ROSSI D., HARDIMAN G., COPELAND N., GILBERT D.J., JENKINS N.,
ZLOTNIK A., BAZAN J.F.;
RL SUBMITTED (MAR-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; U92565; G2459677; -.
DR PFAM; PF00048; 118; 1.
SQ SEQUENCE 395 AA; 42040 MW; 3997A113 CRC32;

Query Match 95.2%; Score 80; DB 11; Length 395;
Best Local Similarity 90.0%; Pred. No. 6.64e-05;
Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 74 CADPREKXWQ 83
1 CADPRKXWQ 10

RESULT 2
ID 035188 PRELIMINARY; PRT; 395 AA.
AC 035188:
DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE NEUROACTIN.
GN SCYD1.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
SCUROGNATHI; MURIDAE; MURINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE; 97320499.
RA PAN Y., CLARE L., HONG Z., DOLICH S., DEEDS J., GONZALO J., VATH J.,
GOSSSELIN M., MA J., DUSSAULT B., WOLFF B., ALPERIN A., CULPEPPER J.,
GUTIERREZ-RAMOS J.C., GEARING D.;
RT "Neurotactin," a membrane-anchored chemokine upregulated in brain
inflammation."
RL NATURE 387:611-617(1997).
DR EMBL; AF010586; G2317698; -.
DR MGI; MGI:1097153; SCYD1.
DR PFAM; PF00048; 118; 1.
SQ SEQUENCE 395 AA; 42098 MW; E3CD0612 CRC32;

Query Match 95.2%; Score 80; DB 11; Length 395;
Best Local Similarity 90.0%; Pred. No. 6.64e-05;
Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 74 CADPREKXWQ 83
1 CADPRKXWQ 10

RESULT 3
ID 000175 PRELIMINARY; PRT; 119 AA.
AC 000175:
DT 01-JUL-1997 (TREMBLREL. 04, CREATED)
DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE MPF-2.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RA PATEL V.P., KREIDER B.L., LI Y., LI H., LEUNG K., SALCEDO T.,
RA NARDELLI B., PIPPALTA V., GENTZ S., THOTAKURA R., PARMELEE D.,
RA GENTZ R., GAROTTA G.;
RL J. EXP. MED. 0:0-0(0).
DR EMBL; U85768; G1916252; -.
DR PFAM; PF00048; 118; 1.
SQ SEQUENCE 119 AA; 13119 MW; CDF526F0 CRC32;

Query Match 86.9%; Score 73; DB 4; Length 119;
Best Local Similarity 80.0%; Pred. No. 2.14e-03;
Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 74 CADPREKXWQ 83
1 CADPRKXWQ 10

RESULT 4
ID 089093 PRELIMINARY; PRT; 97 AA.
AC 089093:
DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE CC CHEMOKINE ST38 PRECURSOR.
GN LARC.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
OC RODENTIA; SCUROGNATHI; MURIDAE; MURINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RA UTANS-SCHNEITZ U., LOREZ H., KLINKERT W.E.F., DA SILVA J.,
RA LESSLAUER W.;
RT "A novel rat CC chemokine, identified by targeted differential
display, is upregulated in brain inflammation."
RL J. NEUROIMMUNOL. 0:0-0(1998).
RN [2]
RP SEQUENCE FROM N.A.
RA VILLARES R.;
RL SUBMITTED (JUL-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; AF053313; G3551819; -.
DR EMBL; AJ007862; E1312757; -.
KT SIGNAL.
FT SIGNAL. 1 27 POTENTIAL.
FT CHAIN 28 97 CC CHEMOKINE ST38.
SQ SEQUENCE 97 AA; 10826 MW; 053405BD CRC32;

Query Match 84.5%; Score 71; DB 11; Length 97;
Best Local Similarity 88.9%; Pred. No. 5.65e-03;
Matches 8; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 75 CADPRKXWQ 83
1 CADPRKXWQ 9

RESULT 5
ID 000585 PRELIMINARY; PRT; 134 AA.
AC 000585:
DT 01-JUL-1997 (TREMBLREL. 04, CREATED)
DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)

DT 01-NOV-1998 (TREMELREL. 08, LAST ANNOTATION UPDATE)
 DE BETA CHEMOKINE EXODUS-2.
 OC HOMO SAPIENS (HUMAN).
 OC EURARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
 OC CATARRHINI; HOMINIDAE; HOMO.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA HROMAS R.A., GRAY P., KLEMSZ M., FIFE K., BROCKMEYER H.;
 RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 97400322.
 RA HEDRICK J.A., ZLOTNIK A.;
 RT "Identification and characterization of a novel beta chemokine
 containing six conserved cysteines."
 RL J. IMMUNOL. 159:1589-1593(1997).
 RN [3]
 RP SEQUENCE FROM N.A.
 RA HEDRICK J.A., ZLOTNIK A.;
 RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [4]
 RP SEQUENCE FROM N.A.
 RA NAGIRA M., IMAI T., HIESHIMA K., KUSUDA J., RIDANPAA M., TAKAGI S.,
 RA NISHIMURA M., KAKIZAKI M., NOMIYAMA H., YOSHIE O.;
 RL SUBMITTED (AUG-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: U88320; G2196920; -;
 DR EMBL: AF001979; G2624923; -;
 DR EMBL: AB002409; D1022673; -;
 DR PFAM: PF00048; 118; 1.
 SQ SEQUENCE 134 AA; 14646 MW; FE86A239 CRC32;

Query Match 81.0%; Score 68; DB 4; Length 134;
 Best Local Similarity 80.0%; Pred. No. 2.36e-02;
 Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
 UB 75 CADPKELWVQ 84
 QY 1 CADPKOKWVQ 10

RESULT 6 PRELIMINARY; PRT; 95 AA.
 ID 099664
 AC 099664;
 DT 01-MAY-1997 (TREMELREL. 03, CREATED)
 DT 01-MAY-1997 (TREMELREL. 03, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMELREL. 08, LAST ANNOTATION UPDATE)
 DE CHEMOKINE EXODUS.
 OC HOMO SAPIENS (HUMAN).
 OC EURARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
 OC CATARRHINI; HOMINIDAE; HOMO.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-PANCREAS;
 RX MEDLINE: 97275143.
 RA HROMAS R., GRAY P.W., CHANTREY D., GODISKA R., KRATWOHL M., FIFE K.,
 RA BELT G.I., TAKEDA J., ARONICA S., GORDON M., COOPER S., BROCKMEYER H.E.,
 RA KLEMSZ M.J.;
 RT "Cloning and characterization of exodus, a novel beta-chemokine."
 RL BLOOD 89:3315-3322(1997).
 DR EMBL: U64197; G1778717; -;
 DR PROSITE: PS00472; SMALL_CYTOKINES.CC; 1.
 DR PFAM: PF00048; 118; 1.
 SQ SEQUENCE 95 AA; 10691 MW; 1526B4C0 CRC32;

Query Match 79.8%; Score 67; DB 4; Length 95;
 Best Local Similarity 77.8%; Pred. No. 3.77e-02;
 Matches 7; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

DB 73 CANPKQTVW 81
 QY 1 CADPKOKWV 9

RESULT 7 PRELIMINARY; PRT; 96 AA.
 ID P97884
 AC P97884;
 DT 01-MAY-1997 (TREMELREL. 03, CREATED)
 DT 01-MAY-1997 (TREMELREL. 03, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMELREL. 08, LAST ANNOTATION UPDATE)
 DE CC CHEMOKINE EXODUS.
 OC RATUUS NORVEGICUS (RAT).
 OC EURARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; RODENTIA;
 OC SCIUROGNATHI; MURIDAE; MURINAE; RATUUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-SPARGE-DARLEY;
 RA KELLER G.S., MACIEJEMSKI-LENOIR D., LEE E.D., MAKI R.A.;
 RL SUBMITTED (FEB-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [2]
 RP SEQUENCE FROM N.A.
 RC STRAIN-FISHER 344; TISSUE-BRAIN;
 RA UTANS-SCHNEITZ U., LOREZ H., KLINKERT W.E.F., DA SILVA J.,
 RA LESSLAUER W.;
 RT "A novel rat CC chemokine, identified by targeted differential
 RT display, is upregulated in brain inflammation."
 RL J. NEUROIMMUNOL. 0:0-0(1998).
 DR EMBL: U90447; G1899246; -;
 DR EMBL: AF053312; G351817; -;
 DR PFAM: PF00048; 118; 1.
 SQ SEQUENCE 96 AA; 10875 MW; 3FC09DD8 CRC32;

Query Match 79.8%; Score 67; DB 11; Length 96;
 Best Local Similarity 88.9%; Pred. No. 3.77e-02;
 Matches 8; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
 DB 74 CADPKQIYW 82
 QY 1 CADPKOKWV 9

RESULT 8 PRELIMINARY; PRT; 97 AA.
 ID 057411
 AC 057411;
 DT 01-JUN-1998 (TREMELREL. 06, CREATED)
 DT 01-JUN-1998 (TREMELREL. 06, LAST SEQUENCE UPDATE)
 DT 01-JUN-1998 (TREMELREL. 06, LAST ANNOTATION UPDATE)
 DE LYMPHOTACTIN PRECURSOR.
 OC GALLUS GALLUS (CHICKEN).
 OC EURARYOTA; METAZOA; CHORDATA; VERTEBRATA; ARCHOSAURIA; AVES;
 OC NEOGNATHAE; GALLIFORMES; PHASIANIDAE; PHASIANINAE; GALLUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-SPLEEN;
 RA ROSSI D.L., BAZAN J.F., ZLOTNIK A.;
 RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: AF006742; G2827882; -;
 KW SIGNAL.
 FT SIGNAL. 1 24
 FT CHAIN 25 97
 SQ SEQUENCE 97 AA; 11131 MW; 3290101C CRC32;

Query Match 78.6%; Score 66; DB 13; Length 97;
 Best Local Similarity 70.0%; Pred. No. 6.01e-02;
 Matches 7; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

DB 73 CVHPEQKWVQ 82
 QY 1 CADPKOKWVQ 10

RESULT 9 PRELIMINARY; PRT; 397 AA.
 ID P78423
 AC P78423; 000672;
 DT 01-MAY-1997 (TREMELREL. 03, CREATED)
 DT 01-MAY-1997 (TREMELREL. 03, LAST SEQUENCE UPDATE)

01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE CX3C CHEMOKINE PRECURSOR.
 GN A-152B5.2.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
 OC CATARRHINI; HOMINIDAE; HOMO.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 9717711.
 RA BAZAN J.F., BACON K.B., HARDIMAN G., WANG W., SOO K., ROSSI D.,
 RA GREAVES D.R., ZLOTNIK A., SCHALL T.J.;
 RT "A new class of membrane-bound chemokine with a CX3C motif.";
 RL NATURE 385:640-644(1997).
 RN [2]
 RP SEQUENCE FROM N.A.
 RA ADAMS M.D., LOFTUS B.J., ZHOU L., CROSBY M., FUHRMANN J., MASON T.M.,
 RA BRANON R., KIM U.J., KERLAVAGE A.R., VENTER J.C.;
 RT "Homo sapiens chromosome 16 BAC clone C17987SK-A-152B5.";
 RL SUBMITTED (JUN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: U91835; G1898259; -;
 DR EMBL: U84487; G1888523; -;
 DR EMBL: AC004382; G3252821; -;
 DR PFAM: PF00048; 118; 1.
 KW SIGNAL.
 FT CHAIN 25 397 POTENTIAL.
 FT CHAIN 25 397 CX3C CHEMOKINE.
 SQ SEQUENCE 397 AA; 42202 MW; C8093D7D CRC32;

Query Match 78.6%; Score 66; DB 4; Length 397;
 Best Local Similarity 77.8%; Pred. No. 6.01e-02;
 Matches 7; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 74 CADPROMV 82
 11111:11
 QY 1 CADPROMV 9

RESULT 10
 ID 014745 PRELIMINARY; PRT: 80 AA.
 AC 014745;
 DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
 DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE 1278 ALPHA BETA PRECURSOR (FRAGMENT).
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
 OC CATARRHINI; HOMINIDAE; HOMO.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-BRAIN.
 RA IISHIZUKA K., IGATA-YI R., NARUSE K., NAKASHIMA H., OHUCHI K.,
 RA KATSURAGI S., KIN Y., OHMOTO Y., NOMIYAMA H., ITO M., MIURA R.,
 RA MIYAKAWA T.;
 RL SUBMITTED (AUG-1995) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: D63785; G961440; -;
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 DR PFAM: PF00048; 118; 1.
 KW SIGNAL.
 FT CHAIN 1 16 POTENTIAL.
 FT CHAIN 17 80 LD78 ALPHA BETA.
 FT NON_TER 80 80
 SQ SEQUENCE 80 AA; 8857 MW; 3F87F1C6 CRC32;

Query Match 76.2%; Score 64; DB 4; Length 80;
 Best Local Similarity 70.0%; Pred. No. 1.51e-01;
 Matches 7; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 67 CADPROMV 76
 11111:11
 QY 1 CADPROMV 10

RESULT 11
 ID 088430 PRELIMINARY; PRT: 92 AA.
 AC 088430;
 DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE CC CHEMOKINE ABCD-1.
 OS MUS MUSCULUS (MOUSE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
 OC RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; MUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-LIVER.
 RX MEDLINE: 9833531.
 RA SCHMIDT C., PARDALI E., SALLUSTO F., SPELETAS M., RUEDL C.,
 RA SHIMIZU T., SEIDL T., ANDERSSON J., MELCHERS F., ROLINK A.G.,
 RA SIDERAS P.;
 RT "Activated murine B lymphocytes and dendritic cells produce a novel
 CC chemokine which acts selectively on activated T cells.";
 RL J. EXP. MED. 188:451-463(1998).
 DR EMBL: AF052505; G3378116; -;
 SQ SEQUENCE 92 AA; 10302 MW; BC7219A0 CRC32;

Query Match 75.0%; Score 63; DB 11; Length 92;
 Best Local Similarity 77.8%; Pred. No. 2.38e-01;
 Matches 7; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 76 CADPROMV 84
 11111:11
 QY 1 CADPROMV 9

RESULT 12
 ID 093238 PRELIMINARY; PRT: 101 AA.
 AC 093238;
 DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE CC CHEMOKINE-1.
 OS CYPRINUS CARPIO (COMMON CARP).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; ACTINOPTERYGII; NEOPTERYGII;
 OC TELEOSTEI; EUTELEOSTEI; OSTARIOPHYSI; CYPRINIFORMES; CYPRINOIDEA;
 OC CYPRINIDAE; CYPRININAE; CYPRINUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA FUJITA K., NAKAO M., SHIN D., YANO T.;
 RT "CDNA cloning of a carp CC chemokine homologous to mammalian
 RT eotaxins.";
 RL SUBMITTED (JAN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: AB010469; D1032417; -;
 SQ SEQUENCE 101 AA; 11266 MW; 9CFBD540 CRC32;

Query Match 73.8%; Score 62; DB 13; Length 101;
 Best Local Similarity 66.7%; Pred. No. 3.74e-01;
 Matches 6; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 74 CSDPKLRV 82
 11111:11
 QY 1 CSDPKLRV 9

RESULT 13
 ID 043646 PRELIMINARY; PRT: 91 AA.
 AC 043646;
 DT 01-JUN-1998 (TREMBLREL. 06, CREATED)
 DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE RANTES PRECURSOR.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
 OC CATARRHINI; HOMINIDAE; HOMO.
 RN [1]

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RP SEQUENCE FROM N.A.
RA JANG J.S., KIM B.E.;
RL SUBMITTED (JAN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]
RP SEQUENCE FROM N.A.
RA NOMIYAMA H.;
RT "Structure of a region of 181 kb containing five CC chemokine genes.";
RL SUBMITTED (AUG-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
NR EMBL: AF043341; G2905632; -.
DR EMBL: AF088219; G3719366; -.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW SIGNAL.
FT SIGNAL.
FT CHAIN 1 23 POTENTIAL.
FT SEQUENCE 91 AA; 9990 MW; CF404FAD CRC32;
SO SEQUENCE

Query Match
Best Local Similarity 71.4%; Score 60; DB 4; Length 91;
Matches 6; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 73 CANPEKRV 82
1 1 1 1 1
1 CADPKQKVVQ 10

RESULT 14
ID 055038 PRELIMINARY; PRT; 109 AA.
AC 055038;
DT 01-JUN-1998 (TREMBLREL. 06, CREATED)
DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE B LYMPHOCYTE CHEMOTRACTANT BLC.
OS MUS MUSCULUS (MOUSE).
OC EUCARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-C57BL/6J.
RX MEDLINE; 9816056.
RA GUNN M.D., NGO V.N., ANSEL K.M., EKLAND E.H., CYSTER J.G.,
RA WILLIAMS L.T.;
RT "A B-cell-homing chemokine made in lymphoid follicles activates
Burkitt's lymphoma receptor-1.";
RL NATURE 391:799-803(1998).
DR EMBL: AF044196; G2911374; -.
SQ SEQUENCE 109 AA; 11927 MW; BB6CC22 CRC32;

Query Match
Best Local Similarity 71.4%; Score 60; DB 11; Length 109;
Matches 5; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Db 75 CYNPRAKVQ 84
1 1 1 1 1
1 CADPKQKVVQ 10

RESULT 15
ID 015467 PRELIMINARY; PRT; 120 AA.
AC 015467;
DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE IL-10-INDUCIBLE CHEMOKINE.
OS ILINCK OR SCYAL6.
OS HOMO SAPIENS (HUMAN).
OC EUCARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
RN [1]
RP SEQUENCE FROM N.A.
RA HEHRICK J.A., HELMS A., GORMAN D., ZLOTNIK A.;
RL SUBMITTED (NOV-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]
RP SEQUENCE FROM N.A.

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RC TISSUE-LIVER.
RA SHODAI K., HIESHIMA K., FUKUDA S., ITO M., MIURA R., IMAI T.,
RA YOSHIE O., NOMIYAMA H.;
RL BIOCHIM. BIOPHYS. ACTA 0:0-0(1998).
RN [3]
RP SEQUENCE FROM N.A.
RA NOMIYAMA H.;
RT "Structure of a region of 181 kb containing five CC chemokine genes.";
RL SUBMITTED (AUG-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [4]
RP SEQUENCE FROM N.A.
RX MEDLINE; 98308096.
RA YOUN B.S., ZHANG S., BROCKMEYER H.E., ANTOL K., FRASER M.J. JR.,
RA HANGOC G., KWON B.S.;
RT "Isolation and characterization of LMC, a novel lymphocyte and
monocyte chemoattractant human CC chemokine, with myelosuppressive
activity.";
RL BIOCHEM. BIOPHYS. RES. COMMUN. 247:217-222(1998).
DR EMBL: U91746; G2581781; -.
DR EMBL: AB007454; D1024963; -.
DR EMBL: AF088219; G3719365; -.
DR EMBL: AF055467; G3395776; -.
DR PFM; PF00048; 118; 1.
KW SIGNAL.
SQ SEQUENCE 120 AA; 13600 MW; A079DF66 CRC32;

Query Match
Best Local Similarity 70.2%; Score 59; DB 4; Length 120;
Matches 5; Conservative 4; Mismatches 1; Indels 0; Gaps 0;

Db 76 CYNPRDDVQ 85
1 1 1 1 1
1 CADPKQKVVQ 10

RESULT 16
ID 083516 PRELIMINARY; PRT; 187 AA.
AC 083516;
DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE HYPOTHETICAL 21.4 KD PROTEIN.
OS TREPONEMA PALLIDUM.
OC BACTERIA; SPIROCHAETALES; SPIROCHAETACEAE; TREPONEMA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE; 98332770.
RA FRASER C.M., NORRIS S.J., WEINSTOCK G.M., WHITE O., SUTTON G.G.,
RA DODSON R., GINN M., HICKEY E.K., CLAYTON R., KETCHUM K.A.,
RA SODERGEN E., HARDHAM J.M., MCLEOD M.P., SALZBERG S., PETERSON J.,
RA KHALAK H., RICHARDSON D., HOWELL J.K., CHIDAMBARAM M., UTTERBACK T.,
RA MCDONALD L., ARTIACH P., BOWMAN C., COTTON M.D., FUJII C., GARLAND S.,
RA HATCH B., HORST K., ROBERTS K., WATTHEY L., WEIDMAN J., SMITH H.O.,
RA VENTER J.C.;
RT "Complete Genome Sequence of Treponema pallidum, the Syphilis
agent Spirochete.";
RL SCIENCE 281:375-388(1998).
RN [2]
RP SEQUENCE FROM N.A.
RA FRASER C.M., NORRIS S.J., WEINSTOCK G.M., WHITE O., SUTTON G.G.,
RA DODSON R., GINN M., HICKEY E.K., CLAYTON R., KETCHUM K.A.,
RA SODERGEN E., HARDHAM J.M., MCLEOD M.P., SALZBERG S., PETERSON J.,
RA KHALAK H., RICHARDSON D., HOWELL J.K., CHIDAMBARAM M., UTTERBACK T.,
RA MCDONALD L., ARTIACH P., BOWMAN C., COTTON M.D., FUJII C., GARLAND S.,
RA HATCH B., HORST K., ROBERTS K., WATTHEY L., WEIDMAN J., SMITH H.O.,
RA VENTER J.C.;
RL SUBMITTED (MAR-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: AF001226; G3332795; -.
KW HYPOTHETICAL PROTEIN.
SQ SEQUENCE 187 AA; 21410 MW; 50303E26 CRC32;

Query Match
Best Local Similarity 70.2%; Score 59; DB 2; Length 187;

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Best Local Similarity 63.6%; Pred. No. 1,41e+00;
Matches 7; Conservative 3; Mismatches 0; Indels 1; Gaps 1;

Db 31 CTOPROKMWQ 41
1:1:1:1:1:1
QY 1 CADPKQKMWQ 10

RESULT 17
ID 009002 PRELIMINARY; PRT; 133 AA.
AC 009002;
DT 01-JUL-1997 (TREMREL. 04, CREATED)
DT 01-JUL-1997 (TREMREL. 04, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMREL. 08, LAST ANNOTATION UPDATE)
DE SMALL INDUCIBLE CYTOKINE A21 (TCA4).
GN SCYA21.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCURONGNATHI; MURIDAE; MURINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=THYMUS;
RA TANABE S., LU Z., LUO Y., QUACKENBUSH E.J., BERMAN M.A.,
KA COLLINS-RACIE L.A., MI S., REILLY C., LO D., JACOBS K.A., DORF M.E.;
RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE; 97400322.
RA HEDRICK J.A., ZLOTNIK A.;
RT "Identification and characterization of a novel beta chemokine
containing six conserved cysteines.";
RL J. IMMUNOL. 159:1589-1593(1997).
RN [3]
RP SEQUENCE FROM N.A.
RA HEDRICK J.A., ZLOTNIK A.;
RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: AF006637; G2209189; -;
DR EMBL: AF001980; G2624927; -;
DR MGD: MGI:1097677; SCYA21.
DR PFAM: PF00048; 118; 1.
SQ SEQUENCE 133 AA; 14558 MW; C0532523 CRC32;
Query Match 69.0%; Score 58; DB 11; Length 133;
Best Local Similarity 60.0%; Pred. No. 2,19e+00;
Matches 6; Conservative 2; Mismatches 2; Indels 0; Gaps 0;
Db 75 CANPEGWQ 84
1:1:1:1:1:1
QY 1 CADPKQKMWQ 10

RESULT 18
ID 009006 PRELIMINARY; PRT; 133 AA.
AC 009006;
DT 01-JUL-1997 (TREMREL. 04, CREATED)
DT 01-AUG-1998 (TREMREL. 07, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMREL. 08, LAST ANNOTATION UPDATE)
DE BETA CHEMOKINE EXODUS-2.
GN SCYA21.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCURONGNATHI; MURIDAE; MURINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-TOTAL FETUS;
RX MEDLINE; 97444139.
RA HROMAS R., KIM C.H., KLEMSZ M., KRATHWOHL M., FIFE K., COOPER S.,
RA SCHNITZLEIN-BICK C., BROXMEYER H.E.;
RT "Isolation and characterization of Exodus-2, a novel C-C chemokine
with a unique 37-amino acid carboxyl-terminal extension.";
RL J. IMMUNOL. 159:2554-2558(1997).
RN [2]
RP SEQUENCE FROM N.A.

RC TISSUE-TOTAL FETUS;

RA HROMAS R.A.;

RL SUBMITTED (JUN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.

DR EMBL: U88322; G3169697; -;

DR MGD: MGI:1097677; SCYA21.

DR PFAM: PF00048; 118; 1.

SQ SEQUENCE 133 AA; 14600 MW; B34A5E22 CRC32;

Query Match 69.0%; Score 58; DB 11; Length 133;
Best Local Similarity 60.0%; Pred. No. 2,19e+00;

Matches 6; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 75 CANPEGWQ 84
1:1:1:1:1:1
QY 1 CADPKQKMWQ 10

RESULT 19
ID 084834 PRELIMINARY; PRT; 1053 AA.
AC 084834;
DT 01-NOV-1998 (TREMREL. 08, CREATED)
DT 01-NOV-1998 (TREMREL. 08, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMREL. 08, LAST ANNOTATION UPDATE)
DE RIBONUCLEOSIDE REDUCTASE, LARGE CHAIN.
GN NRDA.
OS CHLAMYDIA TRACHOMATIS.
OC BACTERIA; CHLAMYDIALES; CHLAMYDIACEAE; CHLAMYDIA.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=D/W-3/CX;
RA STEPHENS R.S., KALMAN S., LAMMEL C.J., FAN J., MARATHE R., ARAYIND L.,
RA MITCHELL W.P., OLINGER L., TATUSOV R.L., ZHAO Q., KOONIN E.V.,
RA DAVIS R.W.;
RT "Genome Sequence of an Obligate Intracellular Pathogen of Humans:
Chlamydia trachomatis.";
RL SCIENCE 0:0-0(1998).
RN [2]
RP SEQUENCE FROM N.A.
RC STRAIN=D/W-3/CX;
RA STEPHENS R.S., KALMAN S., LAMMEL C.J., FAN J., MARATHE R., ARAYIND L.,
RA MITCHELL W.P., OLINGER L., TATUSOV R.L., ZHAO Q., KOONIN E.V.,
RA DAVIS R.W.;
RL SUBMITTED (MAY-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: AE001355; G3329297; -;
SQ SEQUENCE 1053 AA; 120168 MW; 781C1449 CRC32;
Query Match 69.0%; Score 58; DB 2; Length 1053;
Best Local Similarity 50.0%; Pred. No. 2,19e+00;
Matches 5; Conservative 3; Mismatches 2; Indels 0; Gaps 0;
Db 954 CASRRQKWD 963
1:1:1:1:1:1
QY 1 CADPKQKMWQ 10

RESULT 20
ID 098158 PRELIMINARY; PRT; 95 AA.
AC 098158; 012569;
DT 01-FEB-1997 (TREMREL. 02, CREATED)
DT 01-JUL-1997 (TREMREL. 04, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMREL. 08, LAST ANNOTATION UPDATE)
DE ORF K6.
OS KAPOSI'S SARCOMA-ASSOCIATED HERPESVIRUS.
OC VIRUSES; DSDNA VIRUSES, NO RNA STAGE; HERPESYIRIDAE;
OC GAMMAHERPESYIRINAE; RHADINOVIRUS.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE; 97094384.
RA MOORE P.S., BASHOFF C., WEISS R.A., CHANG Y.;
RT "Molecular mimicry of human cytokine and cytokine response pathway
genes by KSHV.";
RL SCIENCE 274:1739-1744(1996).
RN [2]

RP SEQUENCE FROM N.A.
 RX MEDLINE: 97121480.
 RA RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
 RA PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
 RT "Nucleotide sequence of the Kaposi sarcoma-associated herpesvirus
 (HHV8).";
 RL PROC. NATL. ACAD. SCI. U.S.A. 93:14862-14867(1996).
 RN [3]
 RP SEQUENCE FROM N.A.
 RU RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
 RA PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
 RL SUBMITTED (OCT-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.
 RN [4]
 RP SEQUENCE FROM N.A.
 RA NICHOLAS J., KUVOLF V.R., BURNS W.H., SANDFORD G., WAN X., CIUFFO D.,
 RA HENRICKSON S., GOO H.G., HAYWARD G.S., REITZ M.S.;
 RL SUBMITTED (NOV-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.
 RN [5]
 RP SEQUENCE FROM N.A.
 RA RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
 RA PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
 RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
 RN [6]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 97296220.
 RA NEIRBEL F., ALBRECHT J.C., FLECKENSTEIN B.;
 RT "Cell-homologous genes in the Kaposi's sarcoma-associated rhadinovirus
 human herpesvirus 8: determinants of its pathogenicity?";
 RL J. VIROL. 71:4187-4192(1997).
 RN [7]
 RP SEQUENCE FROM N.A.
 RA SUN R., LIN S.-F., MILLER G.;
 RL SUBMITTED (SEP-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.
 DR EMBL: U75698; G171826; -;
 DR EMBL: U74585; G1658273; -;
 DR EMBL: U93872; G2246546; -;
 DR EMBL: U71366; G3551763; -;
 DR PFIAM, PF00048; 118; 1.
 KW HYPOTHETICAL PROTEIN.
 SQ SEQUENCE 95 AA; 10485 MW; 5283348D CRC32;

Query Match 67.9%; Score 57; DB 14; Length 95;
 Best Local Similarity 60.0%; Pred. No. 3.36e+00;
 Matches 6; Conservative 2; Mismatches 2; Indels 0; Gaps 0;
 Db 76 CADPKRWQV 85
 QY 1 CADPKRWQV 10

RESULT 21
 ID 062812 PRELIMINARY; PRT; 97 AA.
 AC 062812;
 DT 01-AUG-1998 (TREMBLREL. 07, CREATED)
 DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
 DE 01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
 DE INTERLEUKIN-8 (FRAGMENT).
 GN IL-8.
 OS EQUUS CABALLUS (HORSE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
 OC PERISSODACTYLA; EQUIDAE; EQUUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-BRONCHOALVEOLAR TISSUE;
 RA FRANCHINI M.;
 RL SUBMITTED (APR-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
 DR EMBL: AF062377; G3126973; -;
 DR NON_TER 97
 SQ SEQUENCE 97 AA; 10742 MW; 00396FBF CRC32;

Query Match 67.9%; Score 57; DB 6; Length 97;
 Best Local Similarity 60.0%; Pred. No. 3.36e+00;
 Matches 6; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

Db 77 CLNPHTKWQV 86
 QY 1 CADPKRWQV 10
 RESULT 22
 ID 023536 PRELIMINARY; PRT; 192 AA.
 AC 023536;
 DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
 DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
 DE 01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
 DE RESISTANCE GENE HOMOLOG.
 OS ARABIDOPSIS THALIANA (MOUSE-EAR CRESS).
 OC EUKARYOTA; VIRIDIPHYTES; CHAROPHYTA/EMBRYOPHYTA; EMBRYOPHYTA;
 OC TRACHEOPHYTA; EUPHYLOPHYTES; SPERMATOPHYTA; MAGNOLIOPHYTA;
 OC EUDICOTYLEDONS; ROSIDAE; CAPRALES; BRASSICACEAE; ARABIDOPSIS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA BEVAN M., STIKEMA W., MURPHY G., WAMBUTT R., POHL T., TERRIN N.,
 RA KREIS M., KAVANACH T., ENTIAN K.D., RIEGER M., JAMES R.,
 RA PUIGDOMENECH P., HATZPOULOS P., OBERMAIER B., DUESTERHOFF A.,
 RA JONES J., PALME K., ANSORGE W., DELSENY M., BANCROFT I., MEMES H.W.,
 RA SCHUELLER C., CHALMANTZIS N.;
 RL SUBMITTED (JUL-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
 RN [2]
 RP SEQUENCE FROM N.A.
 RA EU ARABIDOPSIS SEQUENCING PROJECT, ESSA;
 RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
 DR EMBL: 297342; E337026; -;
 SQ SEQUENCE 192 AA; 21535 MW; 7BD51863 CRC32;

Query Match 67.9%; Score 57; DB 10; Length 192;
 Best Local Similarity 66.7%; Pred. No. 3.36e+00;
 Matches 6; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
 Db 136 GDOKRWQV 144
 QY 2 ADPKRWQV 10

RESULT 23
 ID 004264 PRELIMINARY; PRT; 1361 AA.
 AC 004264;
 DT 01-JUL-1997 (TREMBLREL. 04, CREATED)
 DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
 DE 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE DOWNY MILDEW RESISTANCE PROTEIN RPP5.
 GN RPP5.
 OS ARABIDOPSIS THALIANA (MOUSE-EAR CRESS).
 OC EUKARYOTA; VIRIDIPHYTES; CHAROPHYTA/EMBRYOPHYTA; EMBRYOPHYTA;
 OC TRACHEOPHYTA; EUPHYLOPHYTES; SPERMATOPHYTA; MAGNOLIOPHYTA;
 OC EUDICOTYLEDONS; ROSIDAE; CAPRALES; BRASSICACEAE; ARABIDOPSIS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-LANDSBERG ERRECTA;
 RA PARKER J.E., COLSMAN M.J., SZABO V., FROST L.N., SCHMIDT R.,
 RA DER BIEZEN E.A., MOORES T., DEAN C., DANIELS M.J., JONES J.D.G.;
 RL PLANT CELL 0:0-0(0).
 DR EMBL: U97106; G2109275; -;
 DR PFIAM, PF00560; LRR; 8.
 DR PFIAM, PF00931; NB-ARC; 1.
 SQ SEQUENCE 1361 AA; 154366 MW; 022612B CRC32;

Query Match 67.9%; Score 57; DB 10; Length 1361;
 Best Local Similarity 66.7%; Pred. No. 3.36e+00;
 Matches 6; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
 Db 136 GDOKRWQV 144
 QY 2 ADPKRWQV 10

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RESULT 24
ID 061090 PRELIMINARY: PRT: 522 AA.
AC 061090:
DT 01-AUG-1998 (TREMBLREL. 07, CREATED)
DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
DE SERINE RICH PROTEIN HOMOLOG (FRAGMENT).
OS PLASMODIUM VIVAX.
OC EUKARYOTA; ALVEOLATA; APICOMPLEXA; HAEMOSPORIDA; PLASMODIUM.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-SALVADOR I.
RA ROSENTHAL P.J.
RL SUBMITTED (MAR-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: AF052747; G2970697; -.
FT NON_TER 1
SO SEQUENCE 522 AA; 58070 MW; B1E4CEB2 CRC32;

Query Match
Best Local Similarity 44.4%; Score 56; DB 5; Length 522;
Matches 4; Conservative 4; Mismatches 1; Indels 0; Gaps 0;

Db 158 CPAPENWI 166
Oy 1 CADPKQKWV 9

RESULT 25
ID 043927 PRELIMINARY: PRT: 109 AA.
AC 043927:
DT 01-JUN-1998 (TREMBLREL. 06, CREATED)
DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE CXC CHEMOKINE PRECURSOR.
GN BCA-1.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 98130629.
RA LEGIER D.F., LOETSCHER M., STUBER ROOS R., CLARK-LEWIS I.,
RA BAGGIOLINI M., MOSER B.;
RT "B cell-attracting chemokine 1, a human CXC chemokine expressed in
RT lymphoid tissues, selectively attracts B lymphocytes via BLR1/CXCR5.";
RN J. EXP. MED. 187:653-660(1998).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 98146056.
RA GUNN M.D., NGO V.N., ANSEL K.M., EKLAND E.H., CYSTER J.G.,
RA WILLIAMS L.T.;
RT "A B-cell-homing chemokine made in lymphoid follicles activates
RT Burkitt's lymphoma receptor-1.";
RN NATURE 391:799-803(1998).
RN [3]
RP SEQUENCE FROM N.A.
RA NAPOLITANO M., SPINETTI G., GAETANO C., CAPOGROSSI C.M.;
RL SUBMITTED (OCT-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: AJ002211; E1249325; -.
DR EMBL: AF044197; G2911376; -.
DR EMBL: AF029894; G3169814; -.
KW SIGNAL.
FT CHAIN 1
FT SIGNAL 22
FT CHAIN 23
FT SIGNAL 109
SO SEQUENCE 109 AA; 12664 MW; B5A46BC CRC32;

Query Match
Best Local Similarity 50.0%; Score 55; DB 4; Length 109;
Matches 5; Conservative 1; Mismatches 4; Indels 0; Gaps 0;

Db 76 CVDPOAEMIQ 85
Oy 1 CADPKQKWV 10
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RESULT 26
ID P74671 PRELIMINARY: PRT: 145 AA.
AC P74671:
DT 01-FEB-1997 (TREMBLREL. 02, CREATED)
DT 01-FEB-1997 (TREMBLREL. 02, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE HYPOTHETICAL 16.6 KD PROTEIN.
OS SYNECHOCYSTIS SP. (STRAIN PCC 6803).
OC BACTERIA; CYANOBACTERIA; CHROCOCCALES; SYNECHOCYSTIS.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-PCC6803;
RA TABATA S.;
RL SUBMITTED (JUN-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 97061201.
RA KANEKO T., SATO S., KOTANI H., TANAKA A., ASAMIZU E., NAKAMURA Y.,
RA MIYAJIMA N., HIROSAMA M., SUGIURA M., SASAMOTO S., KIMURA T.,
RA HOSODUCHI T., MATSUNO A., MURAKI A., NAKAZAKI N., NARUO K., OKUMURA S.,
RA SHIMPO S., TAKEUCHI C., WADA T., WATANABE A., YAMADA M., YASUDA M.,
RA TABATA S.;
RT "Sequence analysis of the genome of the unicellular cyanobacterium
RT Synechocystis sp. strain PCC6803. II. Sequence determination of the
RT entire genome and assignment of potential protein-coding regions.";
RL DNA RES. 3:109-136(1996).
DR EMBL: D90917; D1019522; -.
KW HYPOTHETICAL PROTEIN.
SO SEQUENCE 145 AA; 16561 MW; 3370B865 CRC32;
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Query Match
Best Local Similarity 71.4%; Score 55; DB 2; Length 145;
Matches 5; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
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Db 60 PROKQWQ 66
Oy 4 PROKQWQ 10
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RESULT 27
ID 065737 PRELIMINARY: PRT: 307 AA.
AC 065737:
DT 01-AUG-1998 (TREMBLREL. 07, CREATED)
DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
DT 01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
DE BETA-GALACTOSIDASE (EC 3.2.1.23) (LACTASE) (FRAGMENT).
OS CIGER ARIETINUM (CHICKPEA) (GARBANZO).
OC EUKARYOTA; VIRIDIPLANTAE; CHAROPHYTA; EMBRYOPHYTA GROUP; EMBRYOPHYTA;
OC TRACHEOPHYTA; EUPHYLOPHYTES; SPERMATOPHYTA; MAGNOLIOPHYTA;
OC EUDICOTYLEDONS; ROSIDAE; FABALES; FABACEAE; PAPILIONOIDEAE; CIGER.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-CV. CASTELLANA; TISSUE-CULTURED EPICOTYLS;
RA ESTEBAN R., DOPICO B., LABRADOR E.;
RL SUBMITTED (APR-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
CC -1- CATALYTIC ACTIVITY: HYDROLYSIS OF TERMINAL, NON-REDUCING
CC BETA-D-GALACTOSE RESIDUES IN BETA-D-GALACTOSIDES.
DR EMBL: AJ005043; E1285876; -.
KW HYDROLASE; GLYCOSIDASE.
FT NON_TER 1
FT NON_TER 1
SO SEQUENCE 307 AA; 33486 MW; B1EA5B7D CRC32;
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Query Match
Best Local Similarity 62.5%; Score 55; DB 10; Length 307;
Matches 5; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
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Db 266 CGOPTQKW 273
Oy 1 CADPKQKW 8
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RESULT 28
ID 065736 PRELIMINARY: PRT: 730 AA.
AC 065736;
DT 01-AUG-1998 (TREMBLREL. 07, CREATED)
DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE BETA-GALACTOSIDASE (EC 3.2.1.23) (LACTASE).
OS CICCERARIETIDUM (CHICKPEA) (GARBANZO).
OC EUKARYOTA; VIRIDIPHYTES; CHLOROPHYTA/EMBRYOPHYTA GROUP; EMBRYOPHYTA;
OC TRACHEOPHYTA; EUPHYLOPHYTES; SPERMATOPHYTA; MAGNOLIOPHYTA;
OC EUDICOTYLEDONS; ROSIDAE; FABALES; FABACEAE; PAPILIONOIDEAE; CICCER.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-CV. CASTELLANA; TISSUE-ETIOLATED EPICOTYLS;
RA ESTEBAN R., DOPICO B., LABRADOR E.;
RL SUBMITTED (SEP-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
CC -1- CATALYTIC ACTIVITY: HYDROLYSIS OF TERMINAL, NON-REDUCING BETA-D-
CC GALACTOSE RESIDUES IN BETA-D-GALACTOSIDES.
CC -1- SIMILARITY: BELONGS TO FAMILY 35 OF GLYCOSYL HYDROLASES.
DR EMBL; AJ005042; E1321350; -.
DR PROSITE; PS01182; GLYCOSYL-HYDROL_F35; 1.
KW HYDROLASE; GLYCOSIDASE.
FT ACT SITE 187 187 PROTON DONOR (BY SIMILARITY).
SQ SEQUENCE 730 AA; 81300 MM; DIC226FF CRC32;

Query Match 65.5%; Score 55; DB 10; Length 730;
Best Local Similarity 62.5%; Pred. No. 7.84e+00;
Matches 5; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 689 CGOPKQW 696
QY 1 CADPKQKW 8

RESULT 29
ID 051136 PRELIMINARY: PRT: 172 AA.
AC 051136;
DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE HI1054 HOMOLOG (FRAGMENT).
OS NEISSERIA MENINGITIDIS.
OC BACTERIA; PROTEOBACTERIA; BETA SUBDIVISION; NEISSERIACEAE; NEISSERIA.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-M1080;
RX MEDLINE; 96326323.
RA ERWIN A.L., GOTSCHLICH E.C.;
RT "Cloning of a Neisseria meningitidis gene for L-lactate dehydrogenase
RT (L-LDH): evidence for a second meningococcal L-LDH with different
RT regulation."
RL J. BACTERIOL. 178:4807-4813(1996).
DR EMBL; U58911; G1381738; -.
FT NON TER 1 1
SQ SEQUENCE 172 AA; 19765 MM; 85C8B90D CRC32;

Query Match 64.3%; Score 54; DB 2; Length 172;
Best Local Similarity 100.0%; Pred. No. 1.19e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 3 PKOKWV 8
QY 4 PKOKWV 9

RESULT 30
ID 067634 PRELIMINARY: PRT: 203 AA.
AC 067634;
DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE ECO Q PROTEIN (FRAGMENT).

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OS GALLID HERPESVIRUS TYPE 1.
OC VIRUSES; DSDNA VIRUSES; NO RNA STAGE; HERPESVIRIDAE;
OC ALPHAHERPEVIRINAE; VARICELLOVIRUS.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-GA;
RX MEDLINE; 96074534.
RA PENG Q., ZENG M., BHUTIAN Z.A., UBUKATA E., TANAKA A., NONOYAMA M.,
RA SHIRAZI Y.;
RT "Isolation and characterization of Marek's disease virus (MDV) cDNAs
RT mapping to the BamHI-12, BamHI-Q2, and BamHI-L fragments of the MDV
RT genome from lymphoblastoid cells transformed and persistently infected
RT with MDV."
RL VIROLOGY 213:590-599(1995).
DR EMBL; U34966; G1185444; -.
DR PFWM; PF00048; 118; 1.
FT NON TER 1 1
SQ SEQUENCE 203 AA; 23132 MM; 887D04C3 CRC32;

Query Match 64.3%; Score 54; DB 14; Length 203;
Best Local Similarity 60.0%; Pred. No. 1.19e+01;
Matches 6; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Db 146 CYDPEAPWQ 155
QY 1 CADPKQKWQ 10

Search completed: Thu Apr 1 07:27:00 1999
Job time : 40 secs.

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92	39	88.6	74	7	R38923	LD78.	3.07e+02
93	39	88.6	91	1	P91030	Human H400 polypeptide	3.07e+02
94	39	88.6	92	3	R14914	LD78alpha.	3.07e+02
95	39	88.6	92	1	R05902	PAT 464 gene product.	3.07e+02
96	39	88.6	92	1	R04220	Act-2 clone gene prod	3.07e+02
97	39	88.6	93	1	R1553	Human Stem Cell Inhib	3.07e+02
98	39	88.6	93	12	R62616	Stem cell inhibitor,	3.07e+02
99	39	88.6	93	12	R62617	Variant stem cell inh	3.07e+02
100	39	88.6	99	5	R26581	Sequence of p6 precur	3.07e+02

ALIGNMENTS

RESULT 1
ID W13598 standard; peptide; 66 AA.
AC W13598;
DE 07-NOV-1997 (first entry)
KW Monocyte chemoattractant protein analogue MCP-1 (10-76).
KW Truncated monocyte chemoattractant protein-1; inhibitor;
KW receptor binding; anti-inflammatory; basophil; lymphocyte; allergy;
KW chronic inflammatory disease; arthritis; arteriosclerosis;
KW lung disease.
OS Homo sapiens.
PN CA2152141-A.
PD 20-DEC-1996.
PF 19-JUN-1995; 152141.
PR 19-JUN-1995; CA-152141.
PA (LEMI/) LEWIS I.
PI Gong J, Lewis I;
DR WPI: 97-165844/16.
PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
PT lacks MCP-1 activity and inhibits receptor binding, useful as
PT anti-inflammatory agent
PS Disclosure: Page 5; 27pp; English.
CC The present sequence represents an analogue, MCP-1 (10-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-9 of MCP-1, acts as an antagonist of MCP-1
CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammation sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC providing 50% inhibition of binding at a 25:1 ratio or less, compared
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 66 AA;

Query Match 100.0%; Score 44; DB 24; Length 66;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 40 elcdap 45
| | | | |
Qy 1 EICADP 6

RESULT 2
ID W13599 standard; peptide; 67 AA.
AC W13599;
DE 07-NOV-1997 (first entry)
KW Monocyte chemoattractant protein analogue MCP-1 (11-76).
KW Truncated monocyte chemoattractant protein-1; inhibitor;
KW receptor binding; anti-inflammatory; basophil; lymphocyte; allergy;
KW chronic inflammatory disease; arthritis; arteriosclerosis;
KW lung disease.
OS Homo sapiens.
PN CA2152141-A.
PD 20-DEC-1996.
PF 19-JUN-1995; 152141.
PR 19-JUN-1995; CA-152141.
PA (LEMI/) LEWIS I.

PI Gong J, Lewis I;
DR WPI: 97-165844/16.
PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
PT lacks MCP-1 activity and inhibits receptor binding, useful as
PT anti-inflammatory agent
PS Disclosure: Page 5; 27pp; English.
CC The present sequence represents an analogue, MCP-1 (11-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-10 of MCP-1, acts as an antagonist of MCP-1
CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammation sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC providing 50% inhibition of binding at a 25:1 ratio or less, compared
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 67 AA;

Query Match 100.0%; Score 44; DB 24; Length 67;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 41 elcdap 46
| | | | |
Qy 1 EICADP 6

RESULT 3
ID R73915 standard; protein; 67 AA.
AC R73915;
DE 05-DEC-1995 (first entry)
KW Human monocyte chemoattractant factor hMCP-3.
KW Human monocyte chemoattractant factor; hMCP-3; chemokine; vaccine;
KW meningitis related homologous antigenic sequence; MRRAS; RV-1;
KW immunosay; diagnosis; treatment; prophylactic; bacterial;
KW viral.
OS Homo sapiens.
PN M09509232-A.
PD 06-APR-1995.
PF 28-SEP-1994; CA0516.
PR 28-SEP-1993; US-127499.
PA (SHAR/) SHARMA L R.
PA (VALS/) VAN ALSTYNE D.
PI Sharma LR, Van Alstyne D;
DR WPI: 95-147431/19.
PT New peptide(s) and corresp. antibodies for the treatment of
PT meningitis - the peptide(s) corresp. to homologous antigenic
PT sites on bacterial and viral agents and on chemokine(s), used for
PT detecting and preventing meningitis
PS Claim 47: Fig 8/10; 98pp; English.
CC R73915 is the chemokine Human monocyte chemoattractant factor hMCP-3.
CC It contains the meningitis related antigenic sequences (MRRAS) claimed
CC in R73896 and R73908, which are recognised by a monoclonal antibody
CC from the hybridoma Rubella virus (RV)-1. The claimed MRRAS peptides
CC may be used in immunoassays to diagnose the presence of bacterial
CC and/or viral meningitis agents in a sample, or in prophylactic and
CC therapeutic meningitis treatments. The peptides may also be used as
CC vaccines against meningitis.
CC NB: Identified by matching corresponding MRRAS peptides.
SQ Sequence 67 AA;

Query Match 100.0%; Score 44; DB 14; Length 67;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 41 elcdap 46
| | | | |
Qy 1 EICADP 6

RESULT 4
ID W17668 standard; peptide; 68 AA.
AC W17668;
DT 16-DEC-1997 (first entry)
DE Stem cell mobilising chemokine CXbeta-13.
KW Hematopoietic cell; parasitic infection; colony stimulating factor;
KW hematopoietic; immune response; bacterial infection; transplant;
KW wound healing; bone marrow; immunosuppression; regeneration;
KW neoplastic disease; viral disease; gene therapy; cytotoxic drug.
OS Synthetic.
PN MO9715594-A1.
PD 01-MAY-1997.
PF 23-OCT-1996; U16959.
PR 24-OCT-1995; US-006051.
PA (SMIK) SMITHKLINE BEECHAM CORP.
PI Kreider BL, Li H, Pelus L, White JR;
DR WPI: 97-258956/23.
PT Ten new chemokine(s) able to mobilise stem cells - used where
PT increased levels of haematopoietic cells are required, e.g. to
PT increase resistance to infection
PS Claim 10; Page 13; 24pp; English.
CC The present sequence represents a chemokine, CXbeta-13, which is capable
CC of mobilising stem cells. The chemokine can be used therapeutically to
CC improve stem cell mobilisation, optionally together with a colony
CC stimulating factor or other haematoregulatory agent. It can be used
CC to reverse an increased level of haematopoietic cells is needed, e.g. to
CC bacterial or parasitic), to promote wound healing, in (transplant)
CC patients with reduced bone marrow function as a result of
CC immunosuppressive treatment or disease, and to provide more rapid
CC regeneration of bone marrow after treatment for neoplastic or viral
CC diseases. The induced stem cells may be harvested for subsequent return
CC to the patient, optionally after they have been genetically manipulated
CC to deliver a selected gene product (gene therapy). The cells may be
CC co-administered with a cytotoxic drug.
SQ Sequence 68 AA;

Query Match 100.0%; Score 44; DB 24; Length 68;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 49 eicadp 54
|||||
QY 1 EICADP 6

RESULT 5
ID W13597 standard; peptide; 68 AA.
AC W13597;
DT 07-NOV-1997 (first entry)
DE Monocyte chemoattractant protein analogue MCP-1 (9-76).
KW Truncated monocyte chemoattractant protein-1; inhibitor;
KW receptor binding; anti inflammatory; basophil; lymphocyte; allergy;
KW chronic inflammatory disease; arthritis; arteriosclerosis;
KW lung disease.
OS Homo sapiens.
PN CA2152141-A.
PD 20-DEC-1996.
PF 19-JUN-1995; 152141.
PR 19-JUN-1995; CA-152141.
PA (LEWIS) LEWIS I.
PI Gong J, Lewis I;
DR WPI: 97-165844/16.
PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
PT lacks MCP-1 activity and inhibits receptor binding, useful as
PT anti-inflammatory agent
PS Claim 7; Page 5; 27pp; English.
CC The present sequence represents an analogue, MCP-1 (9-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-8 of MCP-1, acts as an antagonist of MCP-1
CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration

CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammation sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC providing 50% inhibition of binding at a 25:1 ratio or less, compared
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 68 AA;

Query Match 100.0%; Score 44; DB 24; Length 68;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 42 eicadp 47
|||||
QY 1 EICADP 6

RESULT 6
ID W20062 standard; Protein; 69 AA.
AC W20062;
DT 11-SEP-1997 (first entry)
DE Human macrophage derived chemokine analogue.
KW MDC; macrophage derived chemokine; C-C; Cys-Cys; Crohn's disease;
KW rheumatoid arthritis; chemotaxis; fibroblast proliferation;
KW wound healing; angiogenesis; inflammation.
OS Synthetic.
PN MO9640923-A1.
PD 19-DEC-1996.
PF 07-JUN-1996; U10114.
PR 07-JUN-1995; US-479620.
PR 16-NOV-1995; US-558658.
PA (ICOS-) ICOS CORP.
PI Godiska R, Gray PW;
DR WPI: 97-052324/05.
PT Macrophage derived chemokine (MDC) and analogues - used in the
PT treatment of inflammatory diseases, MDC antibodies used to treat
PT Crohn's disease, rheumatoid arthritis, etc.
PS Claim 25; Page 84; 106pp; English.
CC A new macrophage derived chemokine, MDC, a member of the C-C
CC (Cys-Cys) subfamily of cytokines has been isolated. MDC and it's
CC analogues may be used in the treatment of inflammatory diseases
CC especially diseases characterised by monocyte chemotaxis towards a
CC site of inflammation. MDC and it's analogues also induce fibroblast
CC proliferation having a positive effect in wound healing and
CC angiogenesis. They may prove to be clinically important in the
CC treatment of tumours, by directly or indirectly inhibiting tumour
CC formation. Antibodies directed against MDC and its analogues may be
CC used in the treatment of Crohn's disease, rheumatoid arthritis and
CC atherosclerosis. Probes and/or primers for the identification of MDC
CC encoding sequences can be derived from MDC encoding sequences.
SQ Sequence 69 AA;

Query Match 100.0%; Score 44; DB 23; Length 69;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 50 eicadp 55
|||||
QY 1 EICADP 6

RESULT 7
ID R87678 standard; protein; 69 AA.
AC R87678;
DT 21-FEB-1996 (first entry)
DE des(2-8) MCP-1.
KW monocyte chemoattractant protein; MCP-1; mutant; restenosis;
KW angioplasty.
OS Homo sapiens.
FH Key Location/Qualifiers
FT modified_site 2..3 /note="amino acids 2-8 of the native protein have

FT been deleted between these residues"
FT disulfide_bond 4...29
FT disulfide_bond 5...45
PN W09513295-A1.
PD 18-MAY-1995.
PF 07-NOV-1994; U12874.
PR 12-NOV-1993; US-152301.
PA (DAND) DANA FARBER CANCER INST INC.
PI Rollins B, Zhang YJ;
DR WPI: 95-215051/28.
PT Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are
PT capable of inhibiting the monocyte chemo-attractant activity of
PS endogenous MCP-1 and can be used to treat restenosis
PS Claim 4: Page 11, 22pp; English.
CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
CC that they inhibit the monocyte chemoattractant activity of endogenous
CC MCP-1, provided that the derivative has not been modified by the
CC substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
CC are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg
CC by Phe; (3) substitution of 3 Asp by Ala; and/or (4) deletion of amino
CC acids 2-8. The present sequence is a specifically claimed human MCP-1
CC derivative based on the parent protein disclosed in Rollins, Molecular
CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
CC The peptides can be used to prevent restenosis, e.g. in patients
CC undergoing coronary artery angioplasty.
SQ Sequence 69 AA;

Query Match 100.0%; Score 44; DB 14; Length 69;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 43 elcadv 48
|||||
QY 1 EICADP 6

RESULT 8
ID W20061 standard; Protein; 69 AA.
AC W20061;
DT 11-SEP-1997 (first entry)
DE Human macrophage derived chemokine analogue.
KW MDC; macrophage derived chemokine; C-C; Cys-Cys; Crohn's disease;
KW rheumatoid arthritis; chemotaxis; fibroblast proliferation;
KW wound healing; angiogenesis; inflammation.
OS Synthetic.
PN W09640923-A1.
PD 19-DEC-1996.
PF 07-JUN-1996; U10114.
PR 07-JUN-1995; US-479620.
PR 16-NOV-1995; US-558658.
PA (ICOS-) ICOS CORP.
PI Godiska R, Gray PW;
DR WPI: 97-052324/05.
PT Macrophage derived chemokine (MDC) and analogues - used in the
PT treatment of inflammatory diseases. MDC antibodies used to treat
PT Crohn's disease, rheumatoid arthritis, etc.
PS Claim 25: Page 84; 106pp; English.
CC A new macrophage derived chemokine, MDC, a member of the C-C
CC (Cys-Cys) subfamily of cytokines has been isolated. MDC and its
CC analogues may be used in the treatment of inflammatory diseases
CC especially diseases characterised by monocyte chemotaxis towards a
CC site of inflammation. MDC and its analogues also induce fibroblast
CC proliferation having a positive effect in wound healing and
CC angiogenesis. They may prove to be clinically important in the
CC treatment of tumours, by directly or indirectly inhibiting tumour
CC formation. Antibodies directed against MDC and its analogues may be
CC used in the treatment of Crohn's disease, rheumatoid arthritis and
CC atherosclerosis. Probes and/or primers for the identification of MDC
CC encoding sequences can be derived from MDC encoding sequences.
SQ Sequence 69 AA;

Query Match 100.0%; Score 44; DB 23; Length 69;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;

Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Db 50 elcadv 55
|||||
QY 1 EICADP 6

RESULT 9
ID W13596 standard; peptide; 69 AA.
AC W13596;
DT 07-NOV-1997 (first entry)
DE Monocyte chemoattractant protein analogue MCP-1 (8-76).
KW Truncated monocyte chemoattractant protein-1; inhibitor;
KW receptor binding; anti-inflammatory; basophil; lymphocyte; allergy;
KW chronic inflammatory disease; arthritis; arteriosclerosis;
KW lung disease.
OS Homo sapiens.
PN CA2152141-A.
PD 20-DEC-1996.
PF 19-JUN-1995; 152141.
PR 19-JUN-1995; CA-152141.
PA (LEWIS) LEWIS I.
PI Gong J, Lewis I;
DR WPI: 97-165844/16.
PT N-terminally truncated monocyte chemo-attractant protein-1 (MCP-1) -
PT lacks MCP-1 activity and inhibits receptor binding, useful as
PT anti-inflammatory agent
PS Claim 5: Page 5; 27pp; English.
CC The present sequence represents an analogue, MCP-1 (8-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-7 of MCP-1, acts as an antagonist of MCP-1
CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammatory sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 69 AA;

Query Match 100.0%; Score 44; DB 24; Length 69;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 43 elcadv 48
|||||
QY 1 EICADP 6

RESULT 10
ID W20060 standard; Protein; 70 AA.
AC W20060;
DT 11-SEP-1997 (first entry)
DE Human macrophage derived chemokine analogue.
KW MDC; macrophage derived chemokine; C-C; Cys-Cys; Crohn's disease;
KW rheumatoid arthritis; chemotaxis; fibroblast proliferation;
KW wound healing; angiogenesis; inflammation.
OS Synthetic.
PN W09640923-A1.
PD 19-DEC-1996.
PF 07-JUN-1996; U10114.
PR 07-JUN-1995; US-479620.
PR 16-NOV-1995; US-558658.
PA (ICOS-) ICOS CORP.
PI Godiska R, Gray PW;
DR WPI: 97-052324/05.
PT Macrophage derived chemokine (MDC) and analogues - used in the
PT treatment of inflammatory diseases. MDC antibodies used to treat
PT Crohn's disease, rheumatoid arthritis, etc.
PS Claim 25: Page 83; 106pp; English.

CC A new macrophage derived chemokine, MDC, a member of the C-C
 CC (Cys-Cys) subfamily of cytokines has been isolated. MDC and it's
 CC analogues may be used in the treatment of inflammatory diseases
 CC especially diseases characterised by monocyte chemotaxis towards a
 CC site of inflammation. MDC and it's analogues also induce fibroblast
 CC proliferation having a positive effect in wound healing and
 CC angiogenesis. They may prove to be clinically important in the
 CC treatment of tumours, by directly or indirectly inhibiting tumour
 CC formation. Antibodies directed against MDC and its analogues may be
 CC used in the treatment of Crohn's disease, rheumatoid arthritis and
 CC atherosclerosis. Probes and/or primers for the identification of MDC
 CC encoding sequences can be derived from MDC encoding sequences.
 SQ Sequence 70 AA;

Query Match 100.0%; Score 44; DB 23; Length 70;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

DB 51 elcadv 56
 |||||
 QY 1 EICADP 6

RESULT 11
 ID W22675 standard; Protein: 71 AA.
 AC W22675;
 DT 19-MAR-1998 (first entry)
 DE Drol3+ chemokine beta10 or monocyte chemotactic protein 4 variant.
 KW Human; chemokine beta10; Ck beta10; treatment; antagonist;
 KW solid tumour; infection; autoimmune disease; asthma; antibody;
 KW fibrotic disease; psoriasis; neurodegenerative disease;
 KW wound healing; haematopoiesis regulation; gene therapy;
 KW chromosome identification; monocyte chemotactic protein 4;
 KW leukaemia; MCP-4; Drol3+ variant.
 OS Homo sapiens.
 PN MO9731098-A1.
 PD 28-AUG-1997.
 PF 23-FEB-1996; WO-002598.
 PR 23-FEB-1996; WO-002598.
 PA (HUMA-) HUMAN GENOME SCI INC.
 PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
 PI Parmelee D, White J;
 DR WPI: 97-435153/40.
 PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
 PT protein 4 - useful to treat tumours, autoimmune disease, infection,
 PT asthma and fibrosis
 PS Example 11: Fig 5; 83pp; English.
 CC The present sequence is human chemokine beta10 (Ck beta10) or
 CC monocyte chemotactic protein 4 (MCP-4) Drol3+ variant, which can
 CC be used to treat patients deficient in Ck beta10, while a Ck beta10
 CC antagonist can be used to reduce excessive levels of Ck beta10. Ck
 CC beta10 can be used to treat leukaemia, solid tumours, chronic or
 CC opportunistic infections, autoimmune diseases, asthma, fibrotic
 CC diseases, psoriasis and neurodegenerative diseases. It also
 CC promotes wound healing, regulates haematopoiesis and generates
 CC antibodies. Labelled Ck beta10 can be used to identify its cognate
 CC receptor, while cells expressing the receptor can be used to screen
 CC compounds for (ant)agonist activity. The antagonist can be used to
 CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
 CC infectious diseases, allergies, prostaglandin dependent fever and
 CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
 CC syndrome, lung inflammation and atherosclerosis. Ck beta10 cDNA can
 CC be used to isolate genes encoding similar peptides, in gene therapy
 CC and for chromosome identification.
 SQ Sequence 71 AA;

Query Match 100.0%; Score 44; DB 27; Length 71;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

DB 45 elcadv 50
 |||||
 QY 1 EICADP 6

RESULT 12
 ID W22673 standard; Protein: 75 AA.
 AC W22673;
 DT 19-MAR-1998 (first entry)

DE Bac 3 chemokine beta10 or monocyte chemotactic protein 4 variant.
 KW Human; chemokine beta10; Ck beta10; treatment; antagonist;
 KW solid tumour; infection; autoimmune disease; asthma; antibody;
 KW fibrotic disease; psoriasis; neurodegenerative disease;
 KW wound healing; haematopoiesis regulation; gene therapy;
 KW chromosome identification; monocyte chemotactic protein 4;
 KW leukaemia; MCP-4; Bac 3 variant.
 OS Homo sapiens.
 PN MO9731098-A1.
 PD 28-AUG-1997.
 PF 23-FEB-1996; WO-002598.
 PR 23-FEB-1996; WO-002598.
 PA (HUMA-) HUMAN GENOME SCI INC.
 PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
 PI Parmelee D, White J;
 DR WPI: 97-435153/40.

PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
 PT protein 4 - useful to treat tumours, autoimmune disease, infection,
 PT asthma and fibrosis
 PS Example 11: Fig 5; 83pp; English.
 CC The present sequence is human chemokine beta10 (Ck beta10) or
 CC monocyte chemotactic protein 4 (MCP-4) Bac 3 variant, which can be
 CC used to treat patients deficient in Ck beta10, while a Ck beta10
 CC antagonist can be used to reduce excessive levels of Ck beta10. Ck
 CC beta10 can be used to treat leukaemia, solid tumours, chronic or
 CC opportunistic infections, autoimmune diseases, asthma, fibrotic
 CC diseases, psoriasis and neurodegenerative diseases. It also
 CC promotes wound healing, regulates haematopoiesis and generates
 CC antibodies. Labelled Ck beta10 can be used to identify its cognate
 CC receptor, while cells expressing the receptor can be used to screen
 CC compounds for (ant)agonist activity. The antagonist can be used to
 CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
 CC infectious diseases, allergies, prostaglandin dependent fever and
 CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
 CC syndrome, lung inflammation and atherosclerosis. Ck beta10 cDNA can
 CC be used to isolate genes encoding similar peptides, in gene therapy
 CC and for chromosome identification.
 SQ Sequence 75 AA;

Query Match 100.0%; Score 44; DB 27; Length 75;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

DB 49 elcadv 54
 |||||
 QY 1 EICADP 6

RESULT 13
 ID R87677 standard; Protein: 76 AA.
 AC R87677;
 DT 21-FEB-1996 (first entry)
 DE (3-Ala) MCP-1.
 KW monocyte chemoattractant protein; MCP-1; mutant; restenosis;
 KW angioplasty.
 OS Homo sapiens.
 FH Key
 FT modified_site 3 location/Qualifiers
 FT /note- "Asp in the native sequence is replaced by Ala"
 FT disulfide_bond 11..36
 FT disulfide_bond 12..52
 PN WO9513295-A1.
 PD 18-MAY-1995.
 PF 07-NOV-1994; U12874.
 PR 12-NOV-1993; US-152301.
 PA (DAND) DANA FARBER CANCER INST INC.
 PI Rollins B, Zhang YJ;

DR WPI: 95-215051/28.
 PT Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are
 PT capable of inhibiting the monocyte chemo-attractant activity of
 PT endogenous MCP-1 and can be used to treat restenosis
 PS Claim 6: Page 11: 22pp; English.
 CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
 CC that they inhibit the monocyte chemoattractant activity of endogenous
 CC MCP-1, provided that the derivative has not been modified by the
 CC substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
 CC are: (1) substitution of 28-Tyr by aspartate; (2) substitution of 24 Arg
 CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
 CC acids 2-8. The present sequence is a specifically claimed human MCP-1
 CC derivative based on the parent protein disclosed in Rollins. Molecular
 CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
 CC The peptides can be used to prevent restenosis, e.g. in patients
 CC undergoing coronary artery angioplasty.
 SQ Sequence 76 AA:

Query Match 100.0%; Score 44; DB 14; Length 76;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 50 eicadp 55
 |||||
 QY 1 EICADP 6

RESULT 14
 ID R87680 standard; protein; 76 AA.
 AC R87680;
 DT 05-MAR-1996 (first entry)
 DE Monocyte chemotactic activating factor for use as wound remedy.
 KW monocyte chemotactic activating factor; MCAF; wound remedy.
 OS Homo sapiens.
 PN W09507710-A1.
 PF 23-MAR-1995.
 PF 13-SEP-1994; J01512.
 PR 13-SEP-1993; JP-227385.
 PA (TORA) TORAY IND INC.
 PI Matsushima K, Naruto M;
 DR WPI: 95-131181/17.
 PT Wound treatment using monocyte chemotactic factor - has potent
 PT therapeutic effect on skin wounds and ulcers
 PS Disclosure: Page 12: 22pp; Japanese.
 CC The invention relates to a new remedy for curing wounds which, instead
 CC of comprising a growth factor, comprises a monocyte chemotactic
 CC activating factor (MCAF) or its variants or derivatives. The factor has
 CC potent effect on skin wounds and ulcers. The present sequence is human
 CC MCAF, the activity of which is exemplified as the new remedy.
 SQ Sequence 76 AA:

Query Match 100.0%; Score 44; DB 15; Length 76;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 50 eicadp 55
 |||||
 QY 1 EICADP 6

RESULT 15
 ID R28660 standard; Protein; 76 AA.
 AC R28660;
 DT 24-MAR-1993 (first entry)
 DE MCF.
 KW Plasmid; monocyte chemotactic factor; MCF; translation;
 KW termination; terminator; initiation; ribosome binding site;
 KW RBS; promoter; tryptophan; repressor.
 OS Synthetic.
 PN W09219737-A.
 PF 12-NOV-1992.
 PF 27-APR-1992; J00550.
 PR 09-MAY-1991; JP-135950.

PA (DAIN) DAINIPPON PHARM CO LTD.
 PI Fukui T, Matsuo N, Yamada M, Yamagishi J;
 DR WPI: 92-398664/48.
 DR N-PSDB; Q30745-46.
 PT Prod. of polypeptide(s) having monocyte chemotactic activity -
 PT using expression plasmids with E. coli elements and specific
 PT E. coli strains
 PS Claim 1; Page 48 + Page 36; 56pp; English.
 CC An expression plasmid, pM483, for producing MCF(76) consisting
 CC of 76 amino acids was constructed. The prod. can be used for e.g.
 CC treating bacterial infectious diseases.
 SQ Sequence 76 AA:

Query Match 100.0%; Score 44; DB 5; Length 76;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 50 eicadp 55
 |||||
 QY 1 EICADP 6

RESULT 16
 ID W09374 standard; Protein; 76 AA.
 AC W09374;
 DT 21-MAR-1997 (first entry)
 DE Monocyte chemotactic protein 1.
 KW Human; monocyte chemotactic protein; antisense; inhibition;
 KW mononuclear cell; lymphocyte; macrophage; smooth muscle cell;
 KW vascular restenosis.
 OS Homo sapiens.
 FH key location/Qualifiers
 FT misc_difference 1
 FT misc_difference 1 /note="encoded by codon CAG"
 FT misc_difference 51 /note="encoded by codon AUG"
 FT misc_difference 65 /note="encoded by codon CAC"
 FT FT
 FT FT
 PN US5571713-A.
 PD 05-NOV-1996.
 PF 22-OCT-1992; 965678.
 PR 22-OCT-1992; US-965678.
 PR 27-MAY-1994; US-250958.
 PA (UNMI) UNIV MICHIGAN.
 PI Kunkel SU, Lyle LR, Strieter RM;
 DR WPI: 96-505405/50.
 DR N-PSDB; T48092.
 PT Anti-sense Monocyte Chemotactic Protein-1 oligonucleotide(s) -
 PT useful for therapy or diagnosis of restenosis, etc.
 PS Disclosure: Column 13-14; 16pp; English.
 CC This is the amino acid sequence of the human monocyte chemoattractant
 CC protein (MCP)-1, a member of the C-C chemokine family. MCP-1 is a potent
 CC stimulator of monocyte chemotaxis and is produced by injured vascular
 CC smooth cells thus attracting monocytes and macrophages which infiltrate
 CC the injured area and release growth factor. This causes proliferation of
 CC the vascular smooth cells resulting in restenosis. The gene sequence can
 CC be used to generate antisense sequences e.g. T48093-7, which can be used
 CC to inhibit in vitro MCP-1 prodn. by mononuclear cells e.g. lymphocytes or
 CC macrophages, or smooth muscle cells, esp. in order to prevent vascular
 CC restenosis.
 SQ Sequence 76 AA:

Query Match 100.0%; Score 44; DB 20; Length 76;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 50 eicadp 55
 |||||
 QY 1 EICADP 6

RESULT 17
 ID W11131 standard; protein; 76 AA.

AC W1131;
DE 10-JUN-1997 (first entry)
DE Mature human monocyte chemoattractant protein-1 (MCP-1).
KW MCP-1; mature chemoattractant protein-1; cytokine; interleukin-8;
KW IL-8; neutrophil activating peptide; labelling; imaging; targeting;
KW radionuclide; infection; inflammation; neoplasm; atheromatous lesion;
KW restenosis.
OS Homo sapiens.
FH Key Location/Qualifiers
FT misc_difference 1 /note= "X= any amino acid"
FT US5605671-A.
PN 25-FEB-1997.
PR 05-OCT-1992: 956862.
PR 05-OCT-1992: US-956863.
PR 05-OCT-1992: US-956862.
PR 29-APR-1994: US-235659.
PA (MLCW) MALLINCKRODT MEDICAL INC.
PA (UNMI) UNIV MICHIGAN, Strieter RM;
PI Kunkel SL, Lyle LR, Strieter RM;
PI WPI: 97-153541/14.
PT Radio:labelling neutrophil-activating peptide(s) - for imaging
PT Targeted delivery of radioactive agent
PS Example 10: Column 19-20: 15pp; English.
CC W1131 represents mature human monocyte chemoattractant protein-1
CC (MCP-1). MCP-1 was radionuclide labelled and used in a method for
CC imaging a target site in vivo in an animal. Labelled MCP-1 was allowed
CC to accumulate at a target site (having MCP-1 receptors) in the animal
CC and detected so as to image the target site. Any Cys-Cys or Cys-Xaa-Cys
CC chemokine carrying either iodine-123 or iodine-131 can be used in the
CC method. Especially preferred is neutrophil activating peptide-2 (NAP-2)
CC which recognises interleukin-8 receptors and is labelled with
CC technetium-99m, indium-111, copper-62, rhodium-186 or rhodium-188.
CC The method can be used for imaging a site of infection, inflammation,
CC neoplasm, atheromatous lesion or restenosis.
SU Sequence 76 AA:

Query Match 100.0%; Score 44; DB 21; Length 76;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 50 elcadv 55
| | | | |
QY 1 EICADP 6

RESULT 18
ID P90292 standard; peptide; 76 AA.
AC P90292;
DT 17-JAN-1990 (first entry)
DE Peptide from human glioma cell line U-105MG.
KW Glioma; leucocyte; chemotaxis; neoplasms.
OS Human.
FH Key Location/Qualifiers
FT modified_site 1 /label= OTHER
FT /note= "pyroglutamic acid"
FT US7304234-A.
PN 20-JUL-1989.
PR 31-JAN-1989: 030423.
PR 31-JAN-1989: US-304234.
PA (USSH) US Dept. of Health and Human.
PI Yoshimura T; Robinson E; Appella E; Leonard E.
PI WPI: 89-263501/36.
PT New peptide with specific chemotactic activity for monocytes - isolated
PT from glioma or leucocyte cells, useful for treating infections and
PT neoplasms.
PS Disclosure: page 3; 46pp; English.
CC Peptide is derived from glioma cell line U-105MG (ATCC CRU932) or from
CC leucocytes and has mol. wt. 8400. Used to treat infections and neoplasms.
SQ Sequence 76 AA;

Query Match 100.0%; Score 44; DB 1; Length 76;

Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 50 elcadv 55
| | | | |
QY 1 EICADP 6

RESULT 19
ID R53398 standard; Protein; 76 AA.
AC R53398;
DT 15-DEC-1994 (first entry)
DE Sense MCP-1.
KW Antisense; RNA; DNA; monocyte chemotactic protein-1; MCP-1;
KW radionuclide; vascular restenosis; alpha; beta; emitting isotope;
KW diagnosis; monocytes; vascular injury.
OS Mammalian.
FH Key Location/Qualifiers
FT misc_difference 1 /note= "Unspecified amino acid"
FT W09409128-A.
PN 28-APR-1994.
PR 20-OCT-1993: U10074.
PR 22-OCT-1992: US-965678.
PA (MLCW) MALLINCKRODT MEDICAL INC.
PI Lyle LR;
PI WPI: 94-151314/18.
PT Anti-sense monocyte chemotactic protein-1 oligo:nucleotide(s) and
PT peptide(s) - is used for inhibiting, treating or imaging areas of
PT vascular restenosis or potential restenosis
PS Disclosure: Page 5; 42pp; English.
CC The sequences given in R53398-99 represent sense and antisense
CC monocyte chemotactic protein-1 (MCP-1) respectively. These
CC oligonucleotides may be labelled with a radionuclide and use
CC therapeutically for the treatment of vascular restenosis.
CC Radiolabelled antisense MCP-1 compounds may be constructed using high
CC energy alpha or beta emitting isotopes rather than the gamma
CC emitters customarily used for diagnostic purposes. Antisense MCP-1
CC compounds inactivate MCP-1 or inhibit production of MCP-1 so that
CC monocytes are not attracted to the area of vascular injury and
CC proliferation of vascular cells is inhibited.
SU Sequence 76 AA;

Query Match 100.0%; Score 44; DB 10; Length 76;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 50 elcadv 55
| | | | |
QY 1 EICADP 6

RESULT 20
ID R87675 standard; protein; 76 AA.
AC R87675;
DT 21-FEB-1996 (first entry)
DE (28-asp) MCP-1.
KW monocyte chemoattractant protein; MCP-1; mutant; restenosis;
KW angioplasty.
OS Homo sapiens.
FH Key Location/Qualifiers
FT modified_site 28 /note= "Tyr in the native sequence is replaced by Asp"
FT disulfide bond 11..36
FT FT disulfide bond 12..52
PN W09513295-A1.
PD 18-MAY-1995.
PR 07-NOV-1994: U12874.
PR 12-NOV-1993: US-152301.
PA (DAND) DANA FARBER CANCER INST INC.
PI Rollins B; Zhang YJ;
PI WPI: 95-215051/28.
PT Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are

PT capable of inhibiting the monocyte chemo-attractant activity of
PT endogenous MCP-1 and can be used to treat restenosis
PS Claim 5; Page 11; 22pp; English.
CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
CC that they inhibit the monocyte chemoattractant activity of endogenous
CC MCP-1, provided that the derivative has not been modified by the
CC substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
CC are: (1) substitution of 28-Tyr by aspartate; (2) substitution of 24 Arg
CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
CC acids 2-8. The present sequence is a specifically claimed human MCP-1
CC derivative based on the parent protein disclosed in Rollins, Molecular
CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
CC The peptides can be used to prevent restenosis, e.g. in patients
CC undergoing coronary artery angioplasty.
SQ Sequence 76 AA;

Query Match 100.0%; Score 44; DB 14; Length 76;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 50 eicadp 55
|||||
Qy 1 EICADP 6

RESULT 21
ID R87676 standard; protein: 76 AA.
AC R87676;
DT 21-FEB-1996 (first entry)
DE (24-Arg) MCP-1.
KW monocyte chemoattractant protein; MCP-1; mutant; restenosis;
KW angioplasty.
OS Homo sapiens.
FH Key.
FI modified site 24 Location/Qualifiers
FT disulfide bond 11..36 /note= "Arg in the native sequence is replaced by Phe"
FT disulfide bond 12..52
PN MO9513295-A1.
PD 18-MAR-1995.
PF 07-NOV-1994; U12874.
PR 12-NOV-1993; US-152301.
FA (DAND) DANA FARMER CANCER INST INC.
PI Rollins B. Zhang YJ;
PI WPI: 95-215051/28.
RT Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are
PT capable of inhibiting the monocyte chemo-attractant activity of
PT endogenous MCP-1 and can be used to treat restenosis
PS Claim 5; Page 11; 22pp; English.
CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
CC that they inhibit the monocyte chemoattractant activity of endogenous
CC MCP-1, provided that the derivative has not been modified by the
CC substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
CC are: (1) substitution of 28-Tyr by aspartate; (2) substitution of 24 Arg
CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
CC acids 2-8. The present sequence is a specifically claimed human MCP-1
CC derivative based on the parent protein disclosed in Rollins, Molecular
CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
CC The peptides can be used to prevent restenosis, e.g. in patients
CC undergoing coronary artery angioplasty.
SQ Sequence 76 AA;

Query Match 100.0%; Score 44; DB 14; Length 76;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 50 eicadp 55
|||||
Qy 1 EICADP 6

RESULT 22
ID W22672 standard; Protein: 77 AA.

AC W22672;
DT 19-MAR-1998 (first entry)
DE Bac 2 chemokine beta10 or monocyte chemotactic protein 4 variant.
KW Human; chemokine beta10; CK beta10; treatment; antagonist;
KW solid tumour; infection; autoimmune disease; asthma; antibody;
KW fibrotic disease; psoriasis; neurodegenerative disease;
KW wound healing; haematopoiesis regulation; gene therapy;
KW chromosome identification; monocyte chemotactic protein 4;
KW Leukaemia; MCP-4; Bac 2 variant.
OS Homo sapiens.
PN MO9731098-A1.
PD 28-AUG-1997.
PF 23-FEB-1996; WO-002598.
PR 23-FEB-1996; WO-002598.
FA (HUMA-) HUMAN GENOME SCI INC.
PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
PI Parmelee D, White J;
DR WPI: 97-435153/40.
PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
PT protein 4 - useful to treat tumours, autoimmune disease, infection,
PT asthma and fibrosis
PS Example 11; Fig 5; 83pp; English.
CC The present sequence is human chemokine beta10 (CK beta10) or
CC monocyte chemotactic protein 4 (MCP-4) Bac 2 variant, which can be
CC used to treat patients deficient in CK beta10, while a CK beta10
CC antagonist can be used to reduce excessive levels of CK beta10. CK
CC beta10 can be used to treat leukaemia, solid tumours, chronic or
CC opportunistic infections, autoimmune diseases, asthma, fibrotic
CC diseases, psoriasis and neurodegenerative diseases. It also
CC promotes wound healing, regulates haematopoiesis and generates
CC antibodies. Labelled CK beta10 can be used to identify its cognate
CC receptor, while cells expressing the receptor can be used to screen
CC compounds for (ant)agonist activity. The antagonist can be used to
CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
CC infectious diseases, allergies, prostaglandin dependent fever and
CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
CC syndrome, lung inflammation and atherosclerosis. CK beta10 cDNA can
CC be used to isolate genes encoding similar peptides, in gene therapy
CC and for chromosome identification.
SQ Sequence 77 AA;

Query Match 100.0%; Score 44; DB 27; Length 77;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 51 eicadp 56
|||||
Qy 1 EICADP 6

RESULT 23
ID R86859 standard; Protein: 77 AA.
AC R86859;
DT 20-MAR-1996 (first entry)
DE Mature MCP-1.
KW Antisense; monocyte chemotactic protein-1; MCP-1;
KW "C-C" family; chemoattractant cytokine; chemokine; stimulation;
KW monocyte; chemotaxis; vascular smooth muscle cell; macrophage;
KW proliferation; restenosis; balloon angioplasty.
OS Homo sapiens.
PN MO9519167-A1.
PD 20-JUL-1995.
PF 13-JAN-1995; U00605.
PR 14-JAN-1994; US-182917.
FA (MLCW) MALLINCKRODT MEDICAL INC.
PI Lyle LR, Thomas-Miller B;
PI WPI: 95-263703/34.
DR N-PSDB; T03528.
DT New anti-sense oligo:nucleotide(s) and peptide(s) for inhibiting
PT restenosis - are directed against C-C family cytokine(s) such as
PT monocyte chemotactic protein, opt. radio:labelled for therapy or
PT imaging
PS Disclosure: Page 5; 50pp; English.

CC This sequence represents the mature form of monocyte chemotactic
CC protein-1 (MCP-1). MCP-1 is a member of the "C-C" family of
CC chemottractant cytokines or chemokines. It is a potent stimulator
CC of monocyte chemotaxis and has an extremely high degree of specificity
CC for this cell type. MCP-1 is produced by injured vascular smooth muscle
CC cells and attracts the monocytes and macrophages which infiltrate the
CC area, releasing growth factors and resulting in proliferation of vascular
CC smooth muscle and restenosis. Nucleic acid molecules which are antisense
CC to the MCP-1 mRNA may be used to inhibit translation of MCP-1 and so may
CC be useful for inhibiting vascular restenosis, partic. following balloon
CC angioplasty or a related process. The molecule may be radiolabelled to
CC increase its therapeutic effect or for imaging areas of potential
CC restenosis.
SQ Sequence 77 AA:

Query Match 100.0%; Score 44; DB 15; Length 77;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 51 elcadv 56
|||||
QY 1 EICADP 6

RESULT 24
ID W22674 standard; Protein; 79 AA.
AC W22674;
DT 19-MAR-1998 (first entry)
DE Drol1/2 chemokine beta10 or monocyte chemotactic protein 4 variant.
KW Human; chemokine beta10; CK beta10; treatment: antagonist;
KW solid tumour; infection; autoimmune disease; asthma; antibody;
KW fibrotic disease; psoriasis; neurodegenerative disease;
KW wound healing; haematopoiesis regulation; gene therapy;
KW chromosome identification; monocyte chemotactic protein 4;
KW leukaemia; MCP-4; Drol1/2 variant.
OS Homo sapiens.
PN W09731098-A1.
PD 28-AUG-1997.
PF 23-FEB-1996; U02598.
PR 23-FEB-1996; WO-002598.
PA (HOMA-) HUMAN GENOME SCI INC.
PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
PI Parmelee D, White J;
DR WPI: 97-435153/40.
PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
PT protein 4 - useful to treat tumours, autoimmune disease, infection,
PT asthma and fibrosis
PS Example 11; Fig 5; 83pp; English.
CC The present sequence is human chemokine beta10 (CK beta10) or
CC monocyte chemotactic protein 4 (MCP-4) Drol1/2 variant, which can
CC be used to treat patients deficient in CK beta10, while a CK beta10
CC antagonist can be used to reduce excessive levels of CK beta10. CK
CC beta10 can be used to treat leukaemia, solid tumours, chronic or
CC opportunistic infections, autoimmune diseases, asthma, fibrotic
CC diseases, psoriasis and neurodegenerative diseases. It also
CC promotes wound healing, regulates haematopoiesis and generates
CC antibodies. Labelled CK beta10 can be used to identify its cognate
CC receptor, while cells expressing the receptor can be used to screen
CC compounds for (ant)agonist activity. The antagonist can be used to
CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
CC infectious diseases, allergies, prostaglandin dependent fever and
CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
CC syndrome, lung inflammation and atherosclerosis. CK beta10 cDNA can
CC be used to isolate genes encoding similar peptides, in gene therapy
CC and for chromosome identification.
SQ Sequence 79 AA:

Query Match 100.0%; Score 44; DB 27; Length 79;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Db 53 elcadv 58
|||||

QY 1 EICADP 6

RESULT 25
ID W22671 standard; Protein; 82 AA.
AC W22671;
DT 19-MAR-1998 (first entry)
DE Bac 1 chemokine beta10 or monocyte chemotactic protein 4 variant.
KW Human; chemokine beta10; CK beta10; treatment: antagonist;
KW solid tumour; infection; autoimmune disease; asthma; antibody;
KW fibrotic disease; psoriasis; neurodegenerative disease;
KW wound healing; haematopoiesis regulation; gene therapy;
KW chromosome identification; monocyte chemotactic protein 4;
KW leukaemia; MCP-4; Bac 1 variant.
OS Homo sapiens.
PN W09731098-A1.
PD 28-AUG-1997.
PF 23-FEB-1996; U02598.
PR 23-FEB-1996; WO-002598.
PA (HOMA-) HUMAN GENOME SCI INC.
PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
PI Parmelee D, White J;
DR WPI: 97-435153/40.
PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
PT protein 4 - useful to treat tumours, autoimmune disease, infection,
PT asthma and fibrosis
PS Example 11; Fig 5; 83pp; English.
CC The present sequence is human chemokine beta10 (CK beta10) or
CC monocyte chemotactic protein 4 (MCP-4) Bac 1 variant, which can be
CC used to treat patients deficient in CK beta10, while a CK beta10
CC antagonist can be used to reduce excessive levels of CK beta10. CK
CC beta10 can be used to treat leukaemia, solid tumours, chronic or
CC opportunistic infections, autoimmune diseases, asthma, fibrotic
CC diseases, psoriasis and neurodegenerative diseases. It also
CC promotes wound healing, regulates haematopoiesis and generates
CC antibodies. Labelled CK beta10 can be used to identify its cognate
CC receptor, while cells expressing the receptor can be used to screen
CC compounds for (ant)agonist activity. The antagonist can be used to
CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
CC infectious diseases, allergies, prostaglandin dependent fever and
CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
CC syndrome, lung inflammation and atherosclerosis. CK beta10 cDNA can
CC be used to isolate genes encoding similar peptides, in gene therapy
CC and for chromosome identification.
SQ Sequence 82 AA:

Query Match 100.0%; Score 44; DB 27; Length 82;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 56 elcadv 61
|||||
QY 1 EICADP 6

RESULT 26
ID W17665 standard; peptide; 82 AA.
AC W17665;
DT 16-DEC-1997 (first entry)
DE Stem cell mobilising chemokine Ckbeta-10.
KW Haematopoietic cell; parasitic infection; colony stimulating factor;
KW haematoregulator; immune response; bacterial infection; transplant;
KW wound healing; bone marrow; immunosuppression; regeneration;
KW neoplastic disease; viral disease; gene therapy; cytotoxic drug.
OS Synthetic.
PN W09715594-A1.
PD 01-MAY-1997.
PF 23-OCT-1996; U16959.
PR 24-OCT-1995; US-006051.
PA (SMIR) SMITHKLINE BEECHAM CORP.
PI Kreider BL, Li H, Pelus L, White JR;
DR WPI: 97-258956/23.
PT Ten new chemokine(s) able to mobilise stem cells - used where

PT increased levels of hematopoietic cells are required, e.g. to
 PS increase resistance to infection.
 CC Claim 7, Page 11-12; 24pp; English.
 CC The present sequence represents a chemokine, CXCR4-10, which is capable
 CC of mobilising stem cells. The chemokine can be used therapeutically to
 CC improve stem cell mobilization, optionally together with a colony
 CC stimulating factor or other hematopoietic agent. It can be used
 CC wherever an increased level of hematopoietic cells is needed, e.g. to
 CC increase the immune response to chronic infection (particularly
 CC bacterial or parasitic), to promote wound healing, in (transplant)
 CC patients with reduced bone marrow function as a result of
 CC immunosuppressive treatment of disease, and to provide more rapid
 CC regeneration of bone marrow after treatment for neoplastic or viral
 CC diseases. The induced stem cells may be harvested for subsequent return
 CC to the patient, optionally after they have been genetically manipulated
 CC to deliver a selected gene product (gene therapy). The cells may be
 CC co-administered with a cytotoxic drug.
 SQ Sequence 82 AA;

Query Match 100.0%; Score 44; DB 24; Length 82;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 56 eicadp 61
 |||||
 QY 1 EICADP 6

RESULT 27
 ID W40811 standard; Protein; 93 AA.
 AC W40811;
 DT 01-APR-1998 (first entry)
 DE Macrophage-derived chemokine.
 KW Macrophage-derived chemokine; MDC; antibody; binding modulator; therapy;
 KW arthritis; inflammatory disorder; cancer; Crohn's disease;
 OS Homo sapiens.
 FH Key Location/Qualifiers
 FT Peptide 1..24
 FT Protein /note= "leader peptide"
 FT 25..93
 FT /note= "mature protein"
 PN US5688927-A.
 PD 18-NOV-1997.
 PF 07-JUN-1995; 480449.
 PR 07-JUN-1995; US-480449.
 PA (ICOS-) ICOS CORP.
 PI Godiska R, Gray PM;
 DR WPI: 98-008038/01.
 DR N-PSDB: T99233.
 PT Antibodies specific for macrophage-derived chemokine - useful for
 PT purifying or detecting the chemokine or modulating its activity
 PS Claim 3; Column 21-24; 22pp; English.
 CC This sequence represents the macrophage-derived chemokine (MDC). This
 CC protein is used to produce the antibodies of the invention. The
 CC antibodies are useful for purifying MDC polypeptides, for detecting
 CC endogenous MDC in a host, and for modulating binding of MDC to its
 CC receptors. The DNA encoding this sequence can be used for identifying and
 CC isolating non-human MDC homologues. The MDC protein is potentially useful
 CC for treating inflammatory disorders, cancer, etc. Antagonists of MDC can
 CC be used for treating Crohn's disease, arthritis, atherosclerosis etc.
 SQ Sequence 93 AA;

Query Match 100.0%; Score 44; DB 27; Length 93;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 74 eicadp 79
 |||||
 QY 1 EICADP 6

RESULT 28

ID W07604 standard; Protein; 93 AA.
 AC W07604;
 DT 03-SEP-1997 (first entry)
 DE Cytokine beta-13 stimulates migration/activation of immune cells.
 KW Chemokine beta 13; C-beta-13; C-C; Cys-Cys subfamily; immune cell;
 KW defence; activation; eosinophil; monocyte; macrophage; T lymphocyte;
 KW T cell; basophil; gene therapy; tumour; cancer; neoplasia; infection;
 KW Kaposi's sarcoma; cirrhosis; osteoarthritis; pulmonary fibrosis;
 KW leukaemia; autoimmune disease; psoriasis; inflammation; allergy;
 OS Homo sapiens.
 FH Key Location/Qualifiers
 FT misc-difference 45
 FT /note= "given as encoded by CAC codon in T44026"
 FT PN W0639521-A1.
 PD 12-DEC-1996.
 PF 06-JUN-1995; U07294.
 PR 06-JUN-1995; WO-007294.
 PA (HUMA-) HUMA GENOME SCI INC.
 PI (SMR) SMITHKLINE BEECHAM CORP.
 PI Li H, Seibel G;
 DR WPI: 97-043143/04.
 DR N-PSDB: T44026.
 PT Human chemokine beta-13 - useful for treating solid tumours,
 PT leukaemia, infections, autoimmune disease, fibrotic disorders,
 PT psoriasis, etc.
 PS Claim 10; Page 46; 58pp; English.
 CC W07604 shows human chemokine beta-13 (Ck-beta-13), a member of the
 CC C-C (Cys-Cys) branch of intercrine chemokines. Ck-beta-13 is useful for
 CC treating patients lacking chemokine beta-13 by gene therapy. Ck-beta-13
 CC stimulates the invasion and activation of host defence cells making it
 CC useful for treating solid tumours, e.g. Kaposi's sarcoma, and for
 CC enhancing resistance to acute and chronic infections, e.g. mycobacterial
 CC infections. The chemokine induces chemotactic migration of monocytes,
 CC neutrophils, eosinophils, T lymphocytes, basophils and fibroblasts to
 CC sites where they are needed. Eosinophils may be attracted to the site
 CC of a parasite infection to kill parasite larvae. Ck-beta-13 also
 CC recruits debris-clearing and connective tissue promoting inflammatory
 CC cells, and is therefore used to stimulate wound healing, prevent
 CC scarring and treat liver cirrhosis, osteoarthritis and pulmonary
 CC fibrosis. Ck-beta-13 may also be used for treating leukaemia, T-cell
 CC mediated autoimmune diseases, psoriasis, to regulate haematopoiesis and
 CC to inhibit angiogenesis. Ck-beta-13 antagonists inhibit activity of the
 CC chemokine which is useful for treating certain autoimmune diseases,
 CC atherosclerosis, chronic inflammatory and infective diseases, allergic
 CC reactions, rheumatoid arthritis, siliocosis and bone marrow failure.
 SQ Sequence 93 AA;

Query Match 100.0%; Score 44; DB 23; Length 93;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 74 eicadp 79
 |||||
 QY 1 EICADP 6

RESULT 29
 ID W20058 standard; Protein; 93 AA.
 AC W20058;
 DT 11-SEP-1997 (first entry)
 DE Macrophage derived chemokine for treating inflammation.
 KW MDC; macrophage derived chemokine; C-C; Cys-Cys; Crohn's disease;
 KW rheumatoid arthritis; chemotaxis; fibroblast proliferation;
 KW wound healing; angiogenesis; inflammation.
 OS Homo sapiens.
 FH Key Location/Qualifiers
 FT Peptide 1..24
 FT Protein /label= sig_peptide
 FT 25..93
 FT /label= mat_protein
 PN W09640923-A1.
 PD 19-DEC-1996.

PF 07-JUN-1996; U10114.
 PR 07-JUN-1995; US-479620.
 PR 16-NOV-1995; US-558658.
 PA (ICOS-) ICOS CORP.
 PI Godiska R, Gray PW;
 DR WPI; 97-052334/05.
 DR N-PSDB; T76529.
 PT Macrophage derived chemokine (MDC) and analogues - used in the
 PT treatment of inflammatory diseases, MDC antibodies used to treat
 PT Crohn's disease, rheumatoid arthritis, etc.
 PS Claim 1; Page 73; 106pp; English.
 CC A new macrophage derived chemokine, MDC, a member of the C-C
 CC (Cys-Cys) subfamily of cytokines has been isolated. MDC and it's
 CC analogues may be used in the treatment of inflammatory diseases
 CC especially diseases characterised by monocyte chemotaxis towards a
 CC site of inflammation. MDC and it's analogues also induce fibroblast
 CC proliferation having a positive effect in wound healing and
 CC angiogenesis. They may prove to be clinically important in the
 CC treatment of tumours, by directly or indirectly inhibiting tumour
 CC formation. Antibodies directed against MDC and its analogues may be
 CC used in the treatment of Crohn's disease, rheumatoid arthritis and
 CC atherosclerosis. Probes and/or primers for the identification of MDC
 CC encoding sequences can be derived from MDC encoding sequences.
 SQ Sequence 93 AA;

Query Match 100.0%; Score 44; DB 23; Length 93;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 74 eicadp 79
 |||||
 QY 1 EICADP 6

RESULT 30
 ID W30191 standard: Protein; 98 AA.
 AC W30191;
 DT 21-MAR-1998 (first entry)
 DE Monocyte chemotactic protein 5.
 KW Monocyte chemotactic protein 5; MCP-5; human; macrophage;
 KW chemokine; inhibitor; antiinflammatory; atherosclerosis;
 KW Crohn's disease; arthritis; angiogenesis; tumour; metastasis;
 KW therapy; diagnosis; medical imaging.
 OS Homo sapiens.
 FH Key Location/Qualifiers
 FT Peptide 1..23
 FT /label- Sig-peptide
 FT Protein 24..98
 FT /label- Mat-protein
 FT /note- "(Claim 4)"
 PN W09735982-A2.
 PD 02-OCT-1997.
 PE 26-MAR-1997; U04898.
 PR 27-MAR-1996; US-622851.
 PA (ICOS-) ICOS CORP.
 PI Godiska R, Gray PW;
 DR WPI; 97-489645/45.
 DR N-PSDB; T90880.
 PT Polynucleotide encoding monocyte chemotactic protein-5 - useful in
 PT treatment of e.g. inflammation, atherosclerosis, angiogenesis and
 PT tumours
 PS Claim 1; Page 36-37; 47pp; English.
 CC This polypeptide comprises human macrophage-derived
 CC monocyte chemotactic protein-5 (MCP-5), a novel C-C chemokine.
 CC Its amino acid sequence was deduced from a cDNA clone (see
 CC T90880 and T90883) isolated from a human macrophage cDNA
 CC library. A claimed method for producing MCP-5 comprises
 CC culturing a host cell that is stably transformed or transfected
 CC with MCP-5 polynucleotide. Also claimed is a hybridoma that
 CC produces a monoclonal antibody (MAB) that is specifically
 CC reactive with the mature MCP-5. MCP-5 (or its analogues and
 CC fragments) is used to enhance the immune response in cases of
 CC wounds or infections, while its inhibitors (e.g. the MAB) are

CC useful as anti-inflammatories in cases of e.g. arthritis and
 CC Crohn's disease, also for treatment of atherosclerosis,
 CC angiogenesis and tumour growth (or metastasis). The MCP-5
 CC inhibitors can possibly also be used to reduce the damaging effects
 CC of chemo- and radio-therapy on myeloid progenitor cells, and to
 CC inhibit replication of HIV. MCP-5 can also be used to identify
 CC its cognate receptor, while MCP-5 peptides (or the analogues or
 CC receptors) are used to modulate MCP-5 activity and to identify
 CC MCP-5 agonists and antagonists.
 SQ Sequence 98 AA;

Query Match 100.0%; Score 44; DB 28; Length 98;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 72 eicadp 77
 |||||
 QY 1 EICADP 6

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MSrch_pp protein - protein database search, using Smith-Waterman algorithm

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 Perfect Score: 44
 Sequence: 1 EICADP 6

Scoring table:
 PAM 150
 Gap 15

Searched: 131922 seqs, 16180660 residues

Post-processing: Minimum Match 0%
 Listing first 50 summaries

Database:

a-geneseq32
 1:part1 2:part2 3:part3 4:part4 5:part5 6:part6 7:part7
 8:part8 9:part9 10:part10 11:part11 12:part12 13:part13
 14:part14 15:part15 16:part16 17:part17 18:part18
 19:part19 20:part20 21:part21 22:part22 23:part23
 24:part24 25:part25 26:part26 27:part27 28:part28
 29:part29

Statistics: Mean 13.493; Variance 41.871; scale 0.322

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description	Pred. No.
1	44	100.0	66	24	W13598	Monocyte chemoattractant
2	44	100.0	67	24	W13599	Monocyte chemoattractant
3	44	100.0	67	24	W13599	Monocyte chemoattractant
4	44	100.0	67	24	W13599	Monocyte chemoattractant
5	44	100.0	68	24	W17658	Human monocyte chemoattractant
6	44	100.0	68	24	W17658	Human monocyte chemoattractant
7	44	100.0	68	24	W17658	Human monocyte chemoattractant
8	44	100.0	68	24	W17658	Human monocyte chemoattractant
9	44	100.0	69	23	W20062	Human monocyte chemoattractant
10	44	100.0	69	23	W20062	Human monocyte chemoattractant
11	44	100.0	69	23	W20062	Human monocyte chemoattractant
12	44	100.0	70	23	W20060	Human monocyte chemoattractant
13	44	100.0	71	27	W22673	Human monocyte chemoattractant
14	44	100.0	71	27	W22673	Human monocyte chemoattractant
15	44	100.0	71	27	W22673	Human monocyte chemoattractant
16	44	100.0	71	27	W22673	Human monocyte chemoattractant
17	44	100.0	71	27	W22673	Human monocyte chemoattractant
18	44	100.0	71	27	W22673	Human monocyte chemoattractant

Result ID	Score	Query Match	Length	DB ID	Description	Pred. No.
1	44	100.0	66	24	W13598	Monocyte chemoattractant
2	44	100.0	67	24	W13599	Monocyte chemoattractant
3	44	100.0	67	24	W13599	Monocyte chemoattractant
4	44	100.0	67	24	W13599	Monocyte chemoattractant
5	44	100.0	68	24	W17658	Human monocyte chemoattractant
6	44	100.0	68	24	W17658	Human monocyte chemoattractant
7	44	100.0	68	24	W17658	Human monocyte chemoattractant
8	44	100.0	68	24	W17658	Human monocyte chemoattractant
9	44	100.0	69	23	W20062	Human monocyte chemoattractant
10	44	100.0	69	23	W20062	Human monocyte chemoattractant
11	44	100.0	69	23	W20062	Human monocyte chemoattractant
12	44	100.0	70	23	W20060	Human monocyte chemoattractant
13	44	100.0	71	27	W22673	Human monocyte chemoattractant
14	44	100.0	71	27	W22673	Human monocyte chemoattractant
15	44	100.0	71	27	W22673	Human monocyte chemoattractant
16	44	100.0	71	27	W22673	Human monocyte chemoattractant
17	44	100.0	71	27	W22673	Human monocyte chemoattractant
18	44	100.0	71	27	W22673	Human monocyte chemoattractant

ALIGNMENTS

Result ID	Score	Query Match	Length	DB ID	Description	Pred. No.
1	44	100.0	66	24	W13598	Monocyte chemoattractant
2	44	100.0	67	24	W13599	Monocyte chemoattractant
3	44	100.0	67	24	W13599	Monocyte chemoattractant
4	44	100.0	67	24	W13599	Monocyte chemoattractant
5	44	100.0	68	24	W17658	Human monocyte chemoattractant
6	44	100.0	68	24	W17658	Human monocyte chemoattractant
7	44	100.0	68	24	W17658	Human monocyte chemoattractant
8	44	100.0	68	24	W17658	Human monocyte chemoattractant
9	44	100.0	69	23	W20062	Human monocyte chemoattractant
10	44	100.0	69	23	W20062	Human monocyte chemoattractant
11	44	100.0	69	23	W20062	Human monocyte chemoattractant
12	44	100.0	70	23	W20060	Human monocyte chemoattractant
13	44	100.0	71	27	W22673	Human monocyte chemoattractant
14	44	100.0	71	27	W22673	Human monocyte chemoattractant
15	44	100.0	71	27	W22673	Human monocyte chemoattractant
16	44	100.0	71	27	W22673	Human monocyte chemoattractant
17	44	100.0	71	27	W22673	Human monocyte chemoattractant
18	44	100.0	71	27	W22673	Human monocyte chemoattractant

Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 40 eicadp 45
| | | | |
QY 1 EICADP 6

RESULT 2

ID W13599 standard; peptide: 67 AA.

AC W13599;

DE 07-NOV-1997 (first entry)

Monocyte chemoattractant protein analogue MCP-1 (11-76).

truncated monocyte chemoattractant protein-1; inhibitor;

receptor binding; anti-inflammatory; basophil; lymphocyte; allergy;

chronic inflammatory disease; arthritis; arteriosclerosis;

lung disease.

OS Homo sapiens.

CA2152141-A.

PD 20-DEC-1996.

PF 19-JUN-1995; 152141.

PR 19-JUN-1995; CA-152141.

PA (LEWIS/) LEWIS I.

PI Gong U, Lewis I.

DR WPI: 97-165844/16.

PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -

anti-inflammatory agent

PS Disclosure; Page 5; 27pp; English.

CC The present sequence represents an analogue, MCP-1 (11-76), of monocyte

chemoattractant protein-1 (MCP-1). The analogue, which lacks the

CC N-terminal amino acids 1-10 of MCP-1, acts as an antagonist of MCP-1

CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1

CC receptor. The analogue is useful as an anti-inflammatory agent to block

CC the effects of MCP-1 which is an inflammatory mediator causing migration

CC of monocytes and other cells e.g. basophils and lymphocytes into

CC inflammatory sites. MCP-1 has been implicated in allergic and chronic

CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung

CC diseases. The analogue competes more effectively with MCP-1 for binding

CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably

CC providing 50% inhibition of binding at a 25:1 ratio or less, compared

CC with 75:1 for prior art mutant 7ND.

CC Sequence 67 AA;

SQ

Query Match

Best Local Similarity 100.0%;

Score 44; DB 24; Length 67;

Pred. No. 8.87e+01;

Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 41 eicadp 46

| | | | |

QY 1 EICADP 6

RESULT 3

ID R73915 standard; protein: 67 AA.

AC R73915;

DE 05-DEC-1995 (first entry)

Human monocyte chemoattractant factor hMCP-3.

Human monocyte chemoattractant factor; hMCP-3; chemokine; vaccine;

meningitis related homologous antigenic sequence; MRHAS; RV-1;

immunossay; diagnosis; treatment; prophylactic; bacterial;

viral.

OS Homo sapiens.

WO9509232-A.

PD 06-APR-1995.

PF 28-SEP-1994; CA0516.

PR 28-SEP-1993; US-127499.

PA (SHAR/) SHARMA L R.

PA (VALS/) VAN ALSTYNE D.

PI Sharma LR, Van Alstyne D;

DR WPI: 95-147431/19.

PT New peptide(s) and corresp. antibodies for the treatment of

PT meningitis - the peptide(s) corresp. to homologous antigenic

PT sites on bacterial and viral agents and on chemokine(s), used for

PT detecting and preventing meningitis

PS Claim 47; Fig 8/10; 98pp; English.

CC R73915 is the chemokine Human monocyte chemoattractant factor hMCP-3.

CC It contains the meningitis related antigenic sequences (MRHAS) claimed

CC in R73896 and R73908, which are recognised by a monoclonal antibody

CC from the hyndroma Rubella virus (RV)-1. The claimed MRHAS peptides

CC may be used in immunoassays to diagnose the presence of bacterial

CC and/or viral meningitis agents in a sample, or in prophylactic and

CC therapeutic meningitis treatments. The peptides may also be used as

CC vaccines against meningitis

CC NB: Identified by matching corresponding MRHAS peptides.

SQ Sequence 67 AA;

Query Match

Best Local Similarity 100.0%;

Score 44; DB 14; Length 67;

Pred. No. 8.87e+01;

Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 41 eicadp 46

| | | | |

QY 1 EICADP 6

RESULT 4

ID W17668 standard; peptide: 68 AA.

AC W17668;

DE 16-DEC-1997 (first entry)

Stem cell mobilising chemokine CXbeta-13.

Haematopoietic cell; parasitic infection; colony stimulating factor;

haematoregulator; immune response; bacterial infection; transplant;

wound healing; bone marrow; immunosuppression; regeneration;

neoplastic disease; viral disease; gene therapy; cytotoxic drug.

OS Synthetic.

PN WO9715594-A1.

PD 01-MAY-1997.

PF 23-OCT-1996; U16959.

PR 24-OCT-1995; US-006051.

PA (SMIR) SMITHLINE BEECHAM CORP.

Kreider BL, Li H, Pelus L, White JR;

DR WPI: 97-256956/23.

PT Ten new chemokine(s) able to mobilise stem cells - used where

PT increased levels of haematopoietic cells are required, e.g. to

PT increase resistance to infection

PS Claim 10; Page 13; 24pp; English.

CC The present sequence represents a chemokine, CXbeta-13, which is capable

CC of mobilising stem cells. The chemokine can be used therapeutically to

CC improve stem cell mobilisation, optionally together with a colony

CC stimulating factor or other haematoregulatory agent. It can be used

CC wherever an increased level of haematopoietic cells is needed, e.g. to

CC increase the immune response to chronic infection (particularly

CC bacterial or parasitic), to promote wound healing, in (transplant)

CC patients with reduced bone marrow function as a result of

CC immunosuppressive treatment or disease, and to provide more rapid

CC regeneration of bone marrow after treatment for neoplastic or viral

CC diseases. The induced stem cells may be harvested for subsequent return

CC to the patient, optionally after they have been genetically manipulated

CC co-administered with a cytotoxic drug.

SQ Sequence 68 AA;

Query Match

Best Local Similarity 100.0%;

Score 44; DB 24; Length 68;

Pred. No. 8.87e+01;

Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 49 eicadp 54

| | | | |

QY 1 EICADP 6

RESULT 5

ID W13597 standard; peptide: 68 AA.

AC W13597;

DE 07-NOV-1997 (first entry)

DE Monocyte chemoattractant protein analogue MCP-1 (9-76).
 KW Truncated monocyte chemoattractant protein-1; inhibitor;
 KW receptor binding; anti inflammatory; basophil; lymphocyte; allergy;
 KW chronic inflammatory disease; arthritis; arteriosclerosis;
 KW lung disease.
 OS Homo sapiens.
 PN CA2152141-A.
 PD 20-DEC-1996.
 PF 19-JUN-1995; 152141.
 PR 19-JUN-1995; CA-152141.
 PA (LEWIS) LEWIS I.
 PI Gong J, Lewis I;
 DR WPI: 97-165844/16.
 PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
 PT lacks MCP-1 activity and inhibits receptor binding, useful as
 PT anti-inflammatory agent
 PS Claim 7, Page 5; 27pp; English.
 CC The present sequence represents an analogue, MCP-1 (9-76), of monocyte
 CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
 CC N-terminal amino acids 1-8 of MCP-1, acts as an antagonist of MCP-1
 CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
 CC receptor. The analogue is useful as an anti-inflammatory agent to block
 CC the effects of MCP-1 which is an inflammatory mediator causing migration
 CC of monocytes and other cells e.g. basophils and lymphocytes into
 CC inflammatory sites. MCP-1 has been implicated in allergic and chronic
 CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
 CC diseases. The analogue competes more effectively with MCP-1 for binding
 CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
 CC providing 50% inhibition of binding at a 25:1 ratio or less, compared
 CC with 75:1 for prior art mutant 7ND.
 SQ Sequence 68 AA;

Query Match 100.0%; Score 44; DB 24; Length 68;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 42 eicadp 47
 |||||
 QY 1 EICADP 6

RESULT 6
 ID W20062 standard; Protein: 69 AA.
 AC W20062;
 DT 11-SEP-1997 (first entry)
 DE Human macrophage derived chemokine analogue.
 KW MDC; macrophage derived chemokine; C-C; Cys-Cys; Crohn's disease;
 KW rheumatoid arthritis; chemotaxis; fibroblast proliferation;
 KW wound healing; angiogenesis; inflammation.
 OS Synthetic.
 PN MO9640923-A1.
 PD 19-DEC-1996.
 PF 07-JUN-1996; U10114.
 PR 07-JUN-1995; US-479620.
 PR 16-NOV-1995; US-558658.
 PA (ICOS-) ICOS CORP.
 PI Godiska R, Gray PW;
 DR WPI: 97-052324/05.
 PT Macrophage derived chemokine (MDC) and analogues - used in the
 PT treatment of inflammatory diseases, MDC antibodies used to treat
 PT Crohn's disease, rheumatoid arthritis, etc.
 PS Claim 25; Page 84; 106pp; English.
 CC A new macrophage derived chemokine, MDC, a member of the C-C
 CC (Cys-Cys) subfamily of cytokines has been isolated. MDC and it's
 CC analogues may be used in the treatment of inflammatory diseases
 CC especially diseases characterised by monocyte chemotaxis towards a
 CC site of inflammation. MDC and it's analogues also induce fibroblast
 CC proliferation having a positive effect in wound healing and
 CC angiogenesis. They may prove to be clinically important in the
 CC treatment of tumours, by directly or indirectly inhibiting tumour
 CC formation. Antibodies directed against MDC and its analogues may be
 CC used in the treatment of Crohn's disease, rheumatoid arthritis and
 CC atherosclerosis. Probes and/or primers for the identification of MDC

CC encoding sequences can be derived from MDC encoding sequences.
 SQ Sequence 69 AA;

Query Match 100.0%; Score 44; DB 23; Length 69;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 50 eicadp 55
 |||||
 QY 1 EICADP 6

RESULT 7
 ID R87678 standard; protein: 69 AA.
 AC R87678;
 DT 21-FEB-1996 (first entry)
 DE des(2-8) MCP-1.
 KW monocyte chemoattractant protein; MCP-1; mutant; restenosis;
 KW angioplasty.
 OS Homo sapiens.
 FH Key
 FT modified_site 2..3
 FT location/Qualifiers
 FT /note="amino acids 2-8 of the native protein have
 FT been deleted between these residues"
 FT disulfide_bond 4..29
 FT disulfide_bond 5..45
 FT MO9513295-A1.
 PD 18-MAY-1995.
 PE 07-NOV-1994; U12874.
 PR 12-NOV-1993; US-152301.
 PA (DAND) DANA FARBER CANCER INST INC.
 PI Rollins B, Zhang YJ;
 DR WPI: 95-215051/28.
 PT Human monocyte chemoattractant protein-1 (MCP-1) derivs. - are
 PT capable of inhibiting the monocyte chemoattractant activity of
 PT endogenous MCP-1 and can be used to treat restenosis
 PS Claim 4; Page 11; 22pp; English.
 CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
 CC that they inhibit the monocyte chemoattractant activity of endogenous
 CC MCP-1, provided that the derivative has not been modified by the
 CC substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
 CC are: (1) substitution of 28-Tyr by aspartate; (2) substitution of 24-Arg
 CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
 CC acids 2-8. The present sequence is a specifically claimed human MCP-1
 CC derivative based on the parent protein disclosed in Rollins, Molecular
 CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
 CC The peptides can be used to prevent restenosis, e.g. in patients
 CC undergoing coronary artery angioplasty.
 SQ Sequence 69 AA;

Query Match 100.0%; Score 44; DB 14; Length 69;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 43 eicadp 48
 |||||
 QY 1 EICADP 6

RESULT 8
 ID W20061 standard; Protein: 69 AA.
 AC W20061;
 DT 11-SEP-1997 (first entry)
 DE Human macrophage derived chemokine analogue.
 KW MDC; macrophage derived chemokine; C-C; Cys-Cys; Crohn's disease;
 KW rheumatoid arthritis; chemotaxis; fibroblast proliferation;
 KW wound healing; angiogenesis; inflammation.
 OS Synthetic.
 PN MO9640923-A1.
 PD 19-DEC-1996.
 PF 07-JUN-1996; U10114.
 PR 07-JUN-1995; US-479620.
 PR 16-NOV-1995; US-558658.

PA (ICOS-) ICOS CORP.
PI Godiska R, Gray PW.
DR WPI: 97-052324/05.
PT Macrophage derived chemokine (MDC) and analogues - used in the treatment of inflammatory diseases. MDC antibodies used to treat Crohn's disease, rheumatoid arthritis, etc.
PS Claim 25; Page 84; 106pp: English.
CC A new macrophage derived chemokine, MDC, a member of the C-C (Cys-Cys) subfamily of cytokines has been isolated. MDC and it's analogues may be used in the treatment of inflammatory diseases especially diseases characterised by monocyte chemotaxis towards a site of inflammation. MDC and it's analogues also induce fibroblast proliferation having a positive effect in wound healing and angiogenesis. They may prove to be clinically important in the treatment of tumours, by directly or indirectly inhibiting tumour formation. Antibodies directed against MDC and its analogues may be used in the treatment of Crohn's disease, rheumatoid arthritis and atherosclerosis. Probes and/or primers for the identification of MDC encoding sequences can be derived from MDC encoding sequences.
SQ Sequence 69 AA;

Query Match 100.0%; Score 44; DB 23; Length 69;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 50 elcadv 55
| | | | |
OY 1 EICADP 6

RESULT 9
ID W13596 standard; peptide: 69 AA.
AC W13596;
DT 07-NOV-1997 (first entry)
DE Monocyte chemoattractant protein analogue MCP-1 (8-76).
KW Truncated monocyte chemoattractant protein-1; inhibitor;
KW Receptor binding; anti-inflammatory; Dasophyll; lymphocyte; allergy;
KW Chronic inflammatory disease; arthritis; arteriosclerosis;
KW Lung disease.
OS Homo sapiens.
PN CA2152141-A.
PD 20-DEC-1996.
PF 19-JUN-1995; 152141.
PR 19-JUN-1995; CA-152141.
PA (LEWIS) LEWIS I.
PI Gong J, Lewis I;
DR WPI: 97-165844/16.
PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) - anti-inflammatory agent
PS Claim 5; Page 5; 27pp: English.
CC The present sequence represents an analogue, MCP-1 (8-76), of monocyte chemoattractant protein-1 (MCP-1). The analogue, which lacks the N-terminal amino acids 1-7 of MCP-1, acts as an antagonist of MCP-1 as it lacks MCP-1 biological activity and inhibits binding to a MCP-1 receptor. The analogue is useful as an anti-inflammatory agent to block the effects of MCP-1 which is an inflammatory mediator causing migration of monocytes and other cells e.g. basophils and lymphocytes into inflammation sites. MCP-1 has been implicated in allergic and chronic inflammatory diseases e.g. arthritis, arteriosclerosis and several lung diseases. The analogue competes more effectively with MCP-1 for binding MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably providing 50% inhibition of binding at a 25:1 ratio or less, compared with 75:1 for prior art mutant 7ND.
SQ Sequence 69 AA;

Query Match 100.0%; Score 44; DB 24; Length 69;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 43 elcadv 48
| | | | |
OY 1 EICADP 6

RESULT 10
ID W20060 standard; Protein: 70 AA.
AC W20060;
DT 11-SEP-1997 (first entry)
DE Human macrophage derived chemokine analogue.
KW MDC; macrophage derived chemokine; C-C; Cys-Cys; Crohn's disease; rheumatoid arthritis; chemotaxis; fibroblast proliferation;
KW wound healing; angiogenesis; inflammation.
OS Synthetic.
PN W09640923-A1.
PD 19-DEC-1996.
PF 07-JUN-1996; U10114.
PR 07-JUN-1995; US-479620.
PR 16-NOV-1995; US-558658.
PA (ICOS-) ICOS CORP.
PI Godiska R, Gray PW;
DR WPI: 97-052324/05.
PT Macrophage derived chemokine (MDC) and analogues - used in the treatment of inflammatory diseases, MDC antibodies used to treat Crohn's disease, rheumatoid arthritis, etc.
PS Claim 25; Page 83; 106pp: English.
CC A new macrophage derived chemokine, MDC, a member of the C-C (Cys-Cys) subfamily of cytokines has been isolated. MDC and it's analogues may be used in the treatment of inflammatory diseases especially diseases characterised by monocyte chemotaxis towards a site of inflammation. MDC and it's analogues also induce fibroblast proliferation having a positive effect in wound healing and angiogenesis. They may prove to be clinically important in the treatment of tumours, by directly or indirectly inhibiting tumour formation. Antibodies directed against MDC and its analogues may be used in the treatment of Crohn's disease, rheumatoid arthritis and atherosclerosis. Probes and/or primers for the identification of MDC encoding sequences can be derived from MDC encoding sequences.
SQ Sequence 70 AA;

Query Match 100.0%; Score 44; DB 23; Length 70;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 51 elcadv 56
| | | | |
OY 1 EICADP 6

RESULT 11
ID W22675 standard; Protein: 71 AA.
AC W22675;
DT 19-MAR-1998 (first entry)
DE Drol3+ chemokine beta10 or monocyte chemotactic protein 4 variant.
KW Human; chemokine beta10; Ck beta10; treatment; antagonist;
KW Solid tumour; infection; autoimmune disease; asthma; antibody;
KW fibrotic disease; psoriasis; neurodegenerative disease;
KW wound healing; haematopoiesis regulation; gene therapy;
KW chromosome identification; monocyte chemotactic protein 4;
KW leukaemia; MCP-4; Drol3+ variant.
OS Homo sapiens.
PN W09731098-A1.
PD 28-AUG-1997.
PF 23-FEB-1996; WO-002598.
PR 23-FEB-1996; WO-002598.
PA (HUMA-) HUMAN GENOME SCI INC.
PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
PI Parmelee D, White J;
DR WPI: 97-435153/40.
PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic protein 4 - useful to treat tumours, autoimmune disease, infection, asthma and fibrosis
PS Example 11; Fig 5; 83pp: English.
CC The present sequence is human chemokine beta10 (Ck beta10) or monocyte chemotactic protein 4 (MCP-4) Drol3+ variant, which can be used to treat patients deficient in Ck beta10, while a Ck beta10

CC antagonist can be used to reduce excessive levels of Ck betail0. Ck
betail0 can be used to treat leukaemia, solid tumours, chronic or
opportunistic infections, autoimmune diseases, asthma, fibrotic
diseases, psoriasis and neurodegenerative diseases. It also
CC promotes wound healing, regulates haematopoiesis and generates
antibodies. Labeled Ck betail0 can be used to identify its cognate
CC receptor, while cells expressing the receptor can be used to screen
CC compounds for (ant)agonist activity. The antagonist can be used to
CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
CC infectious diseases, allergies, prostaglandin dependent fever and
CC bone marrow failure, silecosis, sarcoidosis, hyper-eosinophilic
CC syndrome, lung inflammation and atherosclerosis. Ck betail0 cDNA can
CC be used to isolate genes encoding similar peptides, in gene therapy
CC and for chromosome identification.

Query Match 100.0%; Score 44; DB 27; Length 71;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 45 eicadp 50
Oy 1 EICADP 6

RESULT 12
ID W22673 standard; Protein; 75 AA.
AC W22673;
DE 19-MAR-1998 (first entry)
KW Human; Chemokine betail0 or monocyte chemotactic protein 4 variant.
KW solid tumour; infection; autoimmune disease; asthma; antibody;
KW fibrotic disease; psoriasis; neurodegenerative disease;
KW wound healing; haematopoiesis regulation; gene therapy;
KW chromosome identification; monocyte chemotactic protein 4;
KW leukaemia; MCP-4; Bac 3 variant.
OS Homo sapiens.
PN WO9731098-A1.
PF 28-AUG-1997.
PR 23-FEB-1996; U02598.
PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
PI Parmelee D, White J;
DR WPI: 97-435153/40.
PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
PT protein 4 - useful to treat tumours, autoimmune disease, infection,
PT asthma and fibrosis
PS Example 11; Fig 5; 83pp; English.
CC The present sequence is human chemokine betail0 (Ck betail0) or
CC monocyte chemotactic protein 4 (MCP-4) Bac 3 variant, which can be
CC used to treat patients deficient in Ck betail0, while a Ck betail0
CC antagonist can be used to reduce excessive levels of Ck betail0. Ck
CC betail0 can be used to treat leukaemia, solid tumours, chronic or
CC opportunistic infections, autoimmune diseases, asthma, fibrotic
CC diseases, psoriasis and neurodegenerative diseases. It also
CC promotes wound healing, regulates haematopoiesis and generates
CC antibodies. Labeled Ck betail0 can be used to identify its cognate
CC receptor, while cells expressing the receptor can be used to screen
CC compounds for (ant)agonist activity. The antagonist can be used to
CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
CC infectious diseases, allergies, prostaglandin dependent fever and
CC bone marrow failure, silecosis, sarcoidosis, hyper-eosinophilic
CC syndrome, lung inflammation and atherosclerosis. Ck betail0 cDNA can
CC be used to isolate genes encoding similar peptides, in gene therapy
CC and for chromosome identification.

Query Match 100.0%; Score 44; DB 27; Length 75;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Db 49 eicadp 54

Oy 1 EICADP 6

RESULT 13
ID R87677 standard; protein; 76 AA.
AC R87677;
DE 21-FEB-1996 (first entry)
KW (3-Ala) MCP-1.
KW monocyte chemoattractant protein; MCP-1; mutant; restenosis;
KW angioplasty.
OS Homo sapiens.
FT modified_site 3 location/Qualifiers
FT disulfide_bond 11..36 /note="asp in the native sequence is replaced by Ala"
FT disulfide_bond 12..52
PN WO9513295-A1.
PD 18-MAR-1995.
PF 07-NOV-1994; U12874.
PR 12-NOV-1993; US-152301.
PI (DAND) DANA FARBER CANCER INST INC.
PI Rollins B, Zhang XT;
DR WPI: 95-215051/28.
PT Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are
PT capable of inhibiting the monocyte chemo-attractant activity of
PT endogenous MCP-1 and can be used to treat restenosis
PS Claim 6; Page 11; 22pp; English.
CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
CC that they inhibit the monocyte chemoattractant activity of endogenous
CC MCP-1, provided that the derivative has not been modified by the
CC substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
CC are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg
CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
CC acids 2-8. The present sequence is a specifically claimed human MCP-1
CC derivative based on the parent protein disclosed in Rollins, Molecular
CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
CC The peptides can be used to prevent restenosis, e.g. in patients
CC undergoing coronary artery angioplasty.

Query Match 100.0%; Score 44; DB 14; Length 76;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 50 eicadp 55
Oy 1 EICADP 6

RESULT 14
ID R87680 standard; protein; 76 AA.
AC R87680;
DE 03-MAR-1996 (first entry)
DE Monocyte chemotactic activating factor for use as wound remedy.
KW monocyte chemotactic activating factor; MCAF; wound remedy.
OS Homo sapiens.
PN WO9507710-A1.
PD 23-MAR-1995.
PF 13-SEP-1994; J01512.
PR 13-SEP-1993; JP-227385.
PA (TORA) TORAY IND INC.
PI Matsushima K, Naruto M;
DR WPI: 95-131181/17.
PT Wound treatment using monocyte chemotactic factor - has potent
PT therapeutic effect on skin wounds and ulcers
PS Disclosure; Page 12; 22pp; Japanese.
CC The invention relates to a new remedy for curing wounds which, instead
CC of comprising a growth factor, comprises a monocyte chemotactic
CC activating factor (MCAF) or its variants or derivatives. The factor has
CC potent effect on skin wounds and ulcers. The present sequence is human
CC MCAF, the activity of which is exemplified as the new remedy.

Query Match 100.0%; Score 44; DB 15; Length 76;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 50 elcadv 55
 1 EICADP 6

RESULT 15
 ID R28660 standard; Protein: 76 AA.
 AC R28660;
 DT 24-MAR-1993 (first entry)
 DE MCF.
 KW Plasmid; monocyte chemotactic factor; MCF; translation;
 KW termination; terminator; initiation; ribosome binding site;
 KW RBS; promoter; cryptophan; repressor.
 OS Synthetic.
 PN WO9219737-A.
 PD 12-NOV-1992.
 PE 27-APR-1992: J00550.
 PR 09-MAY-1991: JP-135950.
 PA (DAIN) DAINIPPON PHARM CO LTD.
 PI Fukui T, Matsuo N, Yamada M, Yamagishi J;
 DR WPI: 92-398864/48.
 DR N-PSDB: Q30745-46.
 PT Prodn. of polypeptide(s) having monocyte chemotactic activity -
 PT using expression plasmids with E. coli elements and specific
 PT E.coli strains
 PS Claim 1, Page 48 + Page 36; 56pp; English.
 CC An expression plasmid, pHM483, for producing MCF(76) consisting
 CC of 76 amino acids was constructed. The prod. can be used for e.g.
 CC treating bacterial infectious diseases.
 SO Sequence 76 AA.

Query Match 100.0%; Score 44; DB 5; Length 76;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 50 elcadv 55
 1 EICADP 6

RESULT 16
 ID W09374 standard; Protein: 76 AA.
 AC W09374;
 DT 21-MAR-1997 (first entry)
 DE Monocyte chemotactic protein 1.
 KW Human; monocyte chemoattractant protein; antisense; inhibition;
 KW mononuclear cell; lymphocyte; macrophage; smooth muscle cell;
 KW vascular stenosis.
 OS Homo sapiens.
 FH Key
 FT misc_difference 1 Location/Qualifiers
 FT misc_difference 51 /note= "encoded by codon CAG"
 FT misc_difference 51 /note= "encoded by codon AUG"
 FT misc_difference 65 /note= "encoded by codon CAC"
 PN US5571713-A.
 PD 05-NOV-1996.
 PE 22-OCT-1992: 965678.
 PR 22-OCT-1992: US-965678.
 PR 27-MAY-1994: US-250958.
 PA (UNMI) UNIV MICHIGAN.
 PI Kunkel SL, Lyle LR, Strieter RM;
 DR WPI: 96-505405/50.
 DR N-PSDB: T48092.
 PT Anti-sense Monocyte Chemotactic Protein-1 oligo:nucleotide(s) -
 PT useful for therapy or diagnosis of restenosis, etc.
 PS Disclosure: Column 13-14; 16pp; English.

CC This is the amino acid sequence of the human monocyte chemoattractant
 CC protein (MCP)-1, a member of the C-C chemokine family. MCP-1 is a potent
 CC stimulator of monocyte chemotaxis and is produced by injured vascular
 CC smooth cells thus attracting monocytes and macrophages which infiltrate
 CC the injured area and release growth factor. This causes proliferation of
 CC the vascular smooth cells resulting in restenosis. The gene sequence can
 CC be used to generate antisense sequences e.g. T48093-7, which can be used
 CC to inhibit in vitro MCP-1 prodn. by mononuclear cells e.g. lymphocytes or
 CC macrophages, or smooth muscle cells, esp. in order to prevent vascular
 CC restenosis.
 SO Sequence 76 AA.

Query Match 100.0%; Score 44; DB 20; Length 76;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 50 elcadv 55
 1 EICADP 6

RESULT 17
 ID W1131 standard; protein: 76 AA.
 AC W1131;
 DT 10-JUN-1997 (first entry)
 DE Mature human monocyte chemoattractant protein-1 (MCP-1).
 KW MCP-1; mature chemoattractant protein-1; cytokine; interleukin-8;
 KW IL-8; neutrophil activating peptide; labelling; imaging; targeting;
 KW radionuclide; infection; inflammation; neoplasm; atheromatous lesion;
 KW restenosis.
 OS Homo sapiens.
 FH Key
 FT misc_difference 1 Location/Qualifiers
 FT misc_difference 1 /note= "X= any amino acid"
 PN US5605671-A.
 PD 25-FEB-1997.
 PE 05-OCT-1992: 956862.
 PR 05-OCT-1992: US-956863.
 PR 05-OCT-1992: US-956862.
 PR 29-APR-1994: US-235659.
 PA (MLCW) MALINKRODT MEDICAL INC.
 PA (UNMI) UNIV MICHIGAN.
 PI Kunkel SL, Lyle LR, Strieter RM;
 DR WPI: 97-153541/14.
 PT Radio:labelling neutrophil-activating peptide(s) - for imaging
 PT targeted delivery of radioactive agent
 PS Example 10; Column 19-20; 15pp; English.
 CC W1131 represents mature human monocyte chemoattractant protein-1
 CC (MCP-1). MCP-1 was radionuclide labelled and used in a method for
 CC imaging a target site in vivo in an animal. Labelled MCP-1 was allowed
 CC to accumulate at a target site (having MCP-1 receptors) in the animal
 CC and detected so as to image the target site. Any Cys-Cys or Cys-Xaa-Cys
 CC chemokine carrying either iodine-123 or iodine-131 can be used in the
 CC method. Especially preferred is neutrophil activating peptide-2 (NAP-2)
 CC which recognises interleukin-8 receptors and is labelled with
 CC technetium-99m, indium-111, copper-62, rhenium-186 or rhenium-188.
 CC The method can be used for imaging a site of infection, inflammation,
 CC neoplasm, atheromatous lesion or restenosis.
 SO Sequence 76 AA.

Query Match 100.0%; Score 44; DB 21; Length 76;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 50 elcadv 55
 1 EICADP 6

RESULT 18
 ID P90292 standard; peptide: 76 AA.
 AC P90292;
 DT 17-JAN-1990 (first entry)

DE Peptide from human glioma cell line U-105MG.
 KW Glioma; leucocyte; chemotaxis; neoplasms.
 OS Human.
 FH Key Location/Qualifiers
 FT modified_site 1
 FT /label=OTHER
 FT /note="pyroglutamic acid"
 PN US7304234-A.
 PD 20-JUL-1989.
 PF 31-JAN-1989; 030423.
 PR 31-JAN-1989; US-304234.
 PA (USSH) US Dept. of Health and Human.
 PI Yoshimura T; Robinson E; Appella E; Leonard E.
 DR WPI; 89-263501/36.
 PT New peptide with specific chemotactic activity for monocytes - isolated from glioma or leucocyte cells, useful for treating infections and neoplasms.
 PS Disclosure; page 3; 46pp; English.
 CC Peptide is derived from glioma cell line U-105MG (ATCC CRL9932) or from leucocytes and has mol. wt. 8400. Used to treat infections and neoplasms.
 SQ Sequence 76 AA;

Query Match 100.0%; Score 44; DB 1; Length 76;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 50 eicadp 55
 |||||
 QY 1 EICADP 6

RESULT 19
 ID R53398 standard; Protein; 76 AA.
 AC R53398;
 DT 15-DEC-1994 (first entry)
 DE Sense MCP-1.
 KW Antisense; RNA; DNA; monocyte chemotactic protein-1; MCP-1; radionuclide; vascular restenosis; alpha; beta; emitting isotope; diagnosis; monocytes; vascular injury.
 OS Mammalian.
 FH Key Location/Qualifiers
 FT misc_difference 1 /note="Unspecified amino acid"
 FT PN W09409128-A.
 PD 28-APR-1994.
 PF 20-OCT-1993; U10074.
 PR 22-OCT-1992; US-965678.
 PA (MLCW) MALLINCKRODT MEDICAL INC.
 PI Lyle LR;
 DR WPI; 94-151314/18.
 PT Anti-sense monocyte chemotactic protein-1 oligo:nucleotide(s) and peptide(s) - is used for inhibiting, treating or imaging areas of vascular restenosis or potential restenosis
 PS Disclosure; page 5; 42pp; English.
 CC The sequences given in R53398-99 represent sense and antisense monocyte chemotactic protein-1 (MCP-1) respectively. These oligonucleotides may be labelled with a radionuclide and use therapeutically for the treatment of vascular restenosis.
 CC Radiolabelled antisense MCP-1 compounds may be constructed using high energy alpha or beta emitting isotopes rather than the gamma emitters customarily used for diagnostic purposes. Antisense MCP-1 compounds inactivate MCP-1 or inhibit production of MCP-1 so that CC monocytes are not attracted to the area of vascular injury and CC proliferation of vascular cells is inhibited.
 SQ Sequence 76 AA;

Query Match 100.0%; Score 44; DB 10; Length 76;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 50 eicadp 55
 |||||
 QY 1 EICADP 6

RESULT 20
 ID R87675 standard; protein; 76 AA.
 AC R87675;
 DT 21-FEB-1996 (first entry)
 DE (28-Asp) MCP-1.
 KW monocyte chemoattractant protein; MCP-1; mutant; restenosis; angioplasty.
 OS Homo sapiens.
 FH Key Location/Qualifiers
 FT modified_site 28
 FT /note="Tyr in the native sequence is replaced by Asp"
 FT disulfide_bond 11..36
 FT disulfide_bond 12..52
 PN W09513295-A1.
 PD 18-MAY-1995.
 PF 07-NOV-1994; U12874.
 PR 12-NOV-1993; US-152301.
 PA (DAND) DANA FARBER CANCER INST INC.
 PI Rollins B; Zhang YJ;
 DR WPI; 95-215051/28.
 PT Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are capable of inhibiting the monocyte chemo-attractant activity of endogenous MCP-1 and can be used to treat restenosis
 PS Claim 5; Page 11; 22pp; English.
 CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such that they inhibit the monocyte chemoattractant activity of endogenous MCP-1, provided that the derivative has not been modified by the substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino acids 2-8. The present sequence is a specifically claimed human MCP-1 CC derivative based on the parent protein disclosed in Rollins, Molecular CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
 CC The peptides can be used to prevent restenosis, e.g. in patients CC undergoing coronary artery angioplasty.
 SQ Sequence 76 AA;

Query Match 100.0%; Score 44; DB 14; Length 76;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 50 eicadp 55
 |||||
 QY 1 EICADP 6

RESULT 21
 ID R87676 standard; protein; 76 AA.
 AC R87676;
 DT 21-FEB-1996 (first entry)
 DE (24-Arg) MCP-1.
 KW monocyte chemoattractant protein; MCP-1; mutant; restenosis; angioplasty.
 OS Homo sapiens.
 FH Key Location/Qualifiers
 FT modified_site 24
 FT /note="Arg in the native sequence is replaced by Phe"
 FT disulfide_bond 11..36
 FT disulfide_bond 12..52
 PN W09513295-A1.
 PD 18-MAY-1995.
 PF 07-NOV-1994; U12874.
 PR 12-NOV-1993; US-152301.
 PA (DAND) DANA FARBER CANCER INST INC.
 PI Rollins B; Zhang YJ;
 DR WPI; 95-215051/28.
 PT Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are capable of inhibiting the monocyte chemo-attractant activity of endogenous MCP-1 and can be used to treat restenosis
 PS Claim 5; Page 11; 22pp; English.
 CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such

CC that they inhibit the monocyte chemoattractant activity of endogenous
CC MCP-1, provided that the derivative has not been modified by the
CC substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
CC are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg
CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
CC acids 2-8. The present sequence is a specifically claimed human MCP-1
CC derivative based on the parent protein disclosed in Rollins, Molecular
CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
CC The peptides can be used to prevent restenosis, e.g. in patients
CC undergoing coronary artery angioplasty.
SQ Sequence 76 AA;

Query Match 100.0%; Score 44; DB 14; Length 76;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 50 eicadp 55
| | | | |
QY 1 EICADP 6

RESULT 22
ID W22672 standard; Protein; 77 AA.
AC W22672:
DT 19-MAR-1998 (first entry)
DE Bac 2 chemokine betat10 or monocyte chemotactic protein 4 variant.
KW Human; chemokine betat10; CK betat10; treatment; antagonist;
KW solid tumour; infection; autoimmune disease; asthma; antibody;
KW fibrotic disease; psoriasis; neurodegenerative disease;
KW wound healing; haematopoiesis regulation; gene therapy;
KW chromosome identification; monocyte chemotactic protein 4;
KW Leukemia; MCP-4; Bac 2 variant.
OS Homo sapiens.
PN WO9731098-A1.
PD 28-AUG-1997.
PF 23-FEB-1996; U02598.
PR 23-FEB-1996; WO-U02598.
PA (HUMA-) HUMAN GENOME SCI INC.
PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
PI Parmelee D, White J;
DR WPI: 97-435153/40.
PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
PT protein 4 - useful to treat tumours, autoimmune disease, infection,
PT asthma and fibrosis
PS Example 11; Fig 5; 83pp; English.
CC The present sequence is human chemokine betat10 (CK betat10) or
CC monocyte chemotactic protein 4 (MCP-4) Bac 2 variant, which can be
CC used to treat patients deficient in CK betat10, while a CK betat10
CC antagonist can be used to reduce excessive levels of CK betat10. CK
CC betat10 can be used to treat leukaemia, solid tumours, chronic or
CC opportunistic infections, autoimmune diseases, asthma, fibrotic
CC diseases, psoriasis and neurodegenerative diseases. It also
CC promotes wound healing, regulates haematopoiesis and generates
CC antibodies. Labelled CK betat10 can be used to identify its cognate
CC receptor, while cells expressing the receptor can be used to screen
CC compounds for (ant)agonist activity. The antagonist can be used to
CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
CC infectious diseases, allergies, prostaglandin dependent fever and
CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
CC syndrome, lung inflammation and atherosclerosis. CK betat10 cDNA can
CC be used to isolate genes encoding similar peptides, in gene therapy
CC and for chromosome identification.
SQ Sequence 77 AA;

Query Match 100.0%; Score 44; DB 27; Length 77;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 51 eicadp 56
| | | | |
QY 1 EICADP 6

RESULT 23
ID R86859 standard; Protein; 77 AA.
AC R86859:
DT 20-MAR-1996 (first entry)
DE Mature MCP-1.
KW Antisense; monocyte chemotactic protein-1; MCP-1;
KW "C-C" family; chemoattractant cytokine; chemokine; stimulation;
KW monocyte; chemotaxis; vascular smooth muscle cell; macrophage;
KW proliferation; restenosis; balloon angioplasty.
OS Homo sapiens.
PN WO9519167-A1.
PD 20-JUL-1995.
PF 13-JAN-1995; U00605.
PR 14-JAN-1994; US-182917.
PA (MLCW) MALLINCKRODT MEDICAL INC.
PI Lyle LR, Thomas-Miller B;
DR WPI: 95-263703/34.
DR N-PSDB; T03528.
PT New anti-sense oligo:nucleotide(s) and peptide(s) for inhibiting
PT restenosis - are directed against C-C family cytokine(s) such as
PT monocyte chemotactic protein, opt. radio-labelled for therapy or
PT imaging
PS Disclosure: Page 5; 50pp; English.
CC This sequence represents the mature form of monocyte chemotactic
CC protein-1 (MCP-1). MCP-1 is a member of the "C-C" family of
CC chemoattractant cytokines or chemokines. It is a potent stimulator
CC of monocyte chemotaxis and has an extremely high degree of specificity
CC for this cell type. MCP-1 is produced by injured vascular smooth muscle
CC cells and attracts the monocytes and macrophages which infiltrate the
CC area, releasing growth factors and resulting in proliferation of vascular
CC smooth muscle and restenosis. Nucleic acid molecules which are antisense
CC to the MCP-1 mRNA may be used to inhibit translation of MCP-1 and so may
CC be useful for inhibiting vascular restenosis, partic. following balloon
CC angioplasty or a related process. The molecule may be radiolabelled to
CC increase its therapeutic effect or for imaging areas of potential
CC restenosis.
SQ Sequence 77 AA;

Query Match 100.0%; Score 44; DB 15; Length 77;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 51 eicadp 56
| | | | |
QY 1 EICADP 6

RESULT 24
ID W22674 standard; Protein; 79 AA.
AC W22674:
DT 19-MAR-1998 (first entry)
DE Droll/2 chemokine betat10 or monocyte chemotactic protein 4 variant.
KW Human; chemokine betat10; CK betat10; treatment; antagonist;
KW solid tumour; infection; autoimmune disease; asthma; antibody;
KW fibrotic disease; psoriasis; neurodegenerative disease;
KW wound healing; haematopoiesis regulation; gene therapy;
KW chromosome identification; monocyte chemotactic protein 4;
KW Leukemia; MCP-4; Droll/2 variant.
OS Homo sapiens.
PN WO9731098-A1.
PD 28-AUG-1997.
PF 23-FEB-1996; U02598.
PR 23-FEB-1996; WO-U02598.
PA (HUMA-) HUMAN GENOME SCI INC.
PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
PI Parmelee D, White J;
DR WPI: 97-435153/40.
PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
PT protein 4 - useful to treat tumours, autoimmune disease, infection,
PT asthma and fibrosis
PS Example 11; Fig 5; 83pp; English.
CC The present sequence is human chemokine betat10 (CK betat10) or
CC monocyte chemotactic protein 4 (MCP-4) Droll/2 variant, which can

CC be used to treat patients deficient in Ck beta10, while a Ck beta10
CC antagonist can be used to reduce excessive levels of Ck beta10. Ck
CC beta10 can be used to treat leukaemia, solid tumours, chronic or
CC opportunistic infections, autoimmune diseases, asthma, fibrotic
CC diseases, psoriasis and neurodegenerative diseases. It also
CC promotes wound healing, regulates haematopoiesis and generates
CC antibodies. Labelled Ck beta10 can be used to identify its cognate
CC receptor, while cells expressing the receptor can be used to screen
CC compounds for (ant)agonist activity. The antagonist can be used to
CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
CC infectious diseases, allergies, prostaglandin dependent fever and
CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
CC syndrome, lung inflammation and atherosclerosis. Ck beta10 cDNA can
CC be used to isolate genes encoding similar peptides, in gene therapy
CC and for chromosome identification.

SO Sequence 79 AA;

Query Match 100.0%; Score 44; DB 27; Length 79;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 53 eicadp 58

Qy 1 EICADP 6

RESULT 25

ID W22671 standard; Protein; 82 AA.

AC W22671;

DT 19-MAR-1998 (first entry)

DE Bac 1 chemokine beta10 or monocyte chemotactic protein 4 variant.

KW Human; chemokine beta10; Ck beta10; treatment; antagonist;

KW solid tumour; infection; autoimmune disease; asthma; antibody;

KW fibrotic disease; psoriasis; neurodegenerative disease;

KW wound healing; haematopoiesis regulation; gene therapy;

KW chromosome identification; monocyte chemotactic protein 4;

KW leukaemia; MCP-4; Bac 1 variant.

OS Homo sapiens.

PN W09731098-A1.

PF 28-AUG-1997.

PR 23-FEB-1996; U02598.

PA (HOMA-) HUMAN GENOME SCI INC.

PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,

PI Parmelee D, White J;

DR WPI; 97-435153/40.

PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic

PT Protein 4 - useful to treat tumours, autoimmune disease, infection,

PT asthma and fibrosis

PS Example 11; Fig 5; 83pp; English.

CC The present sequence is human chemokine beta10 (Ck beta10) or

CC monocyte chemotactic protein 4 (MCP-4) Bac 1 variant, which can be

CC used to treat patients deficient in Ck beta10, while a Ck beta10

CC antagonist can be used to reduce excessive levels of Ck beta10. Ck

CC beta10 can be used to treat leukaemia, solid tumours, chronic or

CC opportunistic infections, autoimmune diseases, asthma, fibrotic

CC diseases, psoriasis and neurodegenerative diseases. It also

CC promotes wound healing, regulates haematopoiesis and generates

CC antibodies. Labelled Ck beta10 can be used to identify its cognate

CC receptor, while cells expressing the receptor can be used to screen

CC compounds for (ant)agonist activity. The antagonist can be used to

CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or

CC infectious diseases, allergies, prostaglandin dependent fever and

CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic

CC syndrome, lung inflammation and atherosclerosis. Ck beta10 cDNA can

CC be used to isolate genes encoding similar peptides, in gene therapy

CC and for chromosome identification.

SO Sequence 82 AA;

Query Match 100.0%; Score 44; DB 27; Length 82;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 56 eicadp 61

Qy 1 EICADP 6

RESULT 26

ID W17665 standard; peptide; 82 AA.

AC W17665;

DT 16-DEC-1997 (first entry)

DE Stem cell mobilising chemokine Ckbeta-10.

KW Haematopoietic cell; parasitic infection; colony stimulating factor;

KW haematoregulator; immune response; bacterial infection; transplant;

KW wound healing; bone marrow; immunosuppression; regeneration;

KW neoplastic disease; viral disease; gene therapy; cytotoxic drug.

OS Synthetic.

PN W09715594-A1.

PF 01-MAY-1997.

PR 23-OCT-1996; U16959.

PA (SMIK) SMITHKLINE BEECHAM CORP.

PI Kreider BL, Li H, Pelus L, White JR;

DR WPI; 97-258956/23.

PT Ten new chemokine(s) able to mobilise stem cells - used where

PT increased levels of haematopoietic cells are required, e.g. to

PT increase resistance to infection

PS Claim 7; Page 11-12; 24pp; English.

CC The present sequence represents a chemokine, Ckbeta-10, which is capable

CC of mobilising stem cells. The chemokine can be used therapeutically to

CC improve stem cell mobilisation, optionally together with a colony

CC stimulating factor or other haematoregulatory agent. It can be used

CC wherever an increased level of haematopoietic cells is needed, e.g. to

CC increase the immune response to chronic infection (particularly

CC bacterial or parasitic), to promote wound healing, in (transplant)

CC patients with reduced bone marrow function as a result of

CC immunosuppressive treatment or disease, and to provide more rapid

CC regeneration of bone marrow after treatment for neoplastic or viral

CC diseases. The induced stem cells may be harvested for subsequent return

CC to the patient, optionally after they have been genetically manipulated

CC to deliver a selected gene product (gene therapy). The cells may be

CC co-administered with a cytotoxic drug.

SO Sequence 82 AA;

Db 56 eicadp 61

Qy 1 EICADP 6

RESULT 27

ID W40811 standard; Protein; 93 AA.

AC W40811;

DT 01-APR-1998 (first entry)

DE Macrophage-derived chemokine.

KW Macrophage-derived chemokine; MDC; antibody; binding modulator; therapy;

KW arthritis; inflammatory disorder; cancer; Crohn s disease;

KW atherosclerosis.

OS Homo sapiens.

FN Key

FT Peptide

FT Protein

PN US5688927-A.

PF 18-NOV-1997.

PR 07-JUN-1995; 480449.

PA (ICOS-) ICOS CORP.

PI Godiska R, Gray PW;

DR WPI; 98-008038/01.

N-PSDB; T99233.

Location/Qualifiers
1..24
/note- "leader peptide"
25..93
/note- "mature protein"

PT Antibodies specific for macrophage-derived chemokine - useful for
 PT purifying or detecting the chemokine or modulating its activity
 PS Claim 3: Column 21-24; 22pp; English.
 CC This sequence represents the macrophage-derived chemokine (MDC). This
 CC protein is used to produce the antibodies of the invention. The
 CC antibodies are useful for purifying MDC polypeptides, for detecting
 CC endogenous MDC in a host, and for modulating binding of MDC to its
 CC receptors. The DNA encoding this sequence can be used for identifying and
 CC isolating non-human MDC homologues. The MDC protein is potentially useful
 CC for treating inflammatory disorders, cancer, etc. Antagonists of MDC can
 CC be used for treating Crohn's disease, arthritis, atherosclerosis etc.
 SO Sequence 93 AA;

Query Match 100.0%; Score 44; DB 27; Length 93;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 74 eicadp 79
 1 EICADP 6

RESULT 28
 ID W07604 standard; Protein: 93 AA.
 AC W07604;
 DT 03-SEP-1997 (first entry)
 DE Cytokine beta-13 stimulates migration/activation of immune cells.
 KW Chemokine beta-13; Ck-beta-13; C-C; Cys-Cys subfamily; immune cell;
 KW defence; activation; eosinophil; monocyte; macrophage; T lymphocyte;
 KW T cell; basophil; gene therapy; tumour; cancer; neoplasia; infection;
 KW Kaposi's sarcoma; cirrhosis; osteoarthritis; pulmonary fibrosis;
 KW leukaemia; autoimmune disease; psoriasis; inflammation; allergy;
 KW rheumatoid arthritis; siliocosis.
 OS Homo sapiens.
 FH Key Location/Qualifiers
 FT misc_difference 45
 FT /note= "given as encoded by CAC codon in T44026"
 PN W09639521-A1.
 PD 12-DEC-1996.
 PF 06-JUN-1995; U07294.
 PR 06-JUN-1995; WO-U07294.
 PA (HUMA-) HUMAN GENOME SCI INC.
 PA (SMRK) SMITHKLINE BEECHAM CORP.
 PI Li H, Seibel G;
 DR WPI: 97-043143/04.
 DR N-PSDB: T44026.
 PT Human chemokine beta-13 - useful for treating solid tumours,
 PT leukaemia, infections, autoimmune disease, fibrotic disorders,
 PT psoriasis, etc.
 PS Claim 10; Page 46; 58pp; English.
 CC W07604 shows human chemokine beta-13 (Ck-beta-13), a member of the
 CC C-C (Cys-Cys) branch of intercrine chemokines. Ck-beta-13 is useful for
 CC treating patients lacking chemokine beta-13 by gene therapy. Ck-beta-13
 CC stimulates the invasion and activation of host defence cells making it
 CC useful for treating solid tumours, e.g. Kaposi's sarcoma, and for
 CC enhancing resistance to acute and chronic infections, e.g. mycobacterial
 CC infections. The chemokine induces chemotactic migration of monocytes,
 CC neutrophils, eosinophils, T lymphocytes, basophils and fibroblasts to
 CC sites where they are needed. Eosinophils may be attracted to the site
 CC of a parasitic infection to kill parasite larvae. Ck-beta-13 also
 CC recruits debris-clearing and connective tissue promoting inflammatory
 CC cells, and is therefore used to stimulate wound healing, prevent
 CC scarring and treat liver cirrhosis, osteoarthritis and pulmonary
 CC fibrosis. Ck-beta-13 may also be used for treating leukaemia. T-cell
 CC mediated autoimmune diseases, psoriasis, to regulate haematopoiesis and
 CC to inhibit angiogenesis. Ck-beta-13 antagonists inhibit activity of the
 CC chemokine which is useful for treating certain autoimmune diseases,
 CC atherosclerosis, chronic inflammatory and infective diseases, allergic
 CC reactions, rheumatoid arthritis, siliocosis and bone marrow failure.
 SO Sequence 93 AA;

Query Match 100.0%; Score 44; DB 23; Length 93;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;

Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Db 74 eicadp 79
 1 EICADP 6

RESULT 29
 ID W20058 standard; Protein: 93 AA.
 AC W20058;
 DT 11-SEP-1997 (first entry)
 DE Macrophage derived chemokine for treating inflammation.
 KW MDC; macrophage derived chemokine; C-C; Cys-Cys; Crohn's disease;
 KW rheumatoid arthritis; chemotaxis; fibroblast proliferation;
 KW wound healing; angiogenesis; inflammation.
 OS Homo sapiens.
 FH Key Location/Qualifiers
 FT peptide 1..24
 FT /label= sig_peptide
 FT protein 25..93
 FT /label= mat_protein
 PN W09640923-A1.
 PD 19-DEC-1996.
 PF 07-JUN-1996; U10114.
 PR 07-JUN-1995; US-479620.
 PR 16-NOV-1995; US-558658.
 PA (ICOS-) ICOS CORP.
 PI Godiska R, Gray PW;
 DR WPI: 97-052324/05.
 DR N-PSDB: T76529.
 PT Macrophage derived chemokine (MDC) and analogues - used in the
 PT treatment of inflammatory diseases, MDC antibodies used to treat
 PT Crohn's disease, rheumatoid arthritis, etc.
 PS Claim 1; Page 73; 106pp; English.
 CC A new macrophage derived chemokine, MDC, a member of the C-C
 CC (Cys-Cys) subfamily of cytokines has been isolated. MDC and it's
 CC analogues may be used in the treatment of inflammatory diseases
 CC especially diseases characterised by monocyte chemotaxis towards a
 CC site of inflammation. MDC and it's analogues also induce fibroblast
 CC proliferation having a positive effect in wound healing and
 CC angiogenesis. They may prove to be clinically important in the
 CC treatment of tumours, by directly or indirectly inhibiting tumour
 CC formation. Antibodies directed against MDC and its analogues may be
 CC used in the treatment of Crohn's disease, rheumatoid arthritis and
 CC atherosclerosis. Probes and/or primers for the identification of MDC
 CC encoding sequences can be derived from MDC encoding sequences.
 SO Sequence 93 AA;

Query Match 100.0%; Score 44; DB 23; Length 93;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 74 eicadp 79
 1 EICADP 6

RESULT 30
 ID W30191 standard; Protein: 98 AA.
 AC W30191;
 DT 21-MAY-1998 (first entry)
 DE Monocyte chemotactic protein 5.
 KW Monocyte chemotactic protein 5; MCP-5; human; macrophage;
 KW chemokine; inhibitor; antiinflammatory; atherosclerosis;
 KW Crohn's disease; arthritis; angiogenesis; tumour; metastasis;
 KW therapy; diagnosis; medical imaging.
 OS Homo sapiens.
 FH Key Location/Qualifiers
 FT Peptide 1..23
 FT /label= sig_peptide
 FT protein 24..98
 FT /label= Mat_protein
 FT /note= "(Claim 4)"

PN W09735982-A2.
 PD 02-OCT-1997.
 PF 26-MAR-1997; U04898.
 PR 27-MAR-1996; US-622851.
 PA (ICOS-) ICOS CORP.
 PI Godtska R. Gray. PW:
 DR WPI: 97-489645/45.
 DR N-PSDB: T90880.
 PT Polynucleotide encoding monocyte chemotactic protein-5 - useful in
 treatment of e.g. inflammation, atherosclerosis, angiogenesis and
 tumours
 PS Claim 1: Page 36-37; 47pp; English.
 CC This polypeptide comprises human macrophage-derived
 CC monocyte chemotactic protein-5 (MCP-5), a novel C-C chemokine.
 CC Its amino acid sequence was deduced from a cDNA clone (see
 CC T90880 and T90883) isolated from a human macrophage cDNA
 CC library. A claimed method for producing MCP-5 comprises
 CC culturing a host cell that is stably transformed or transfected
 CC with MCP-5 polynucleotide. Also claimed is a hybridoma that
 CC produces a monoclonal antibody (Mab) that is specifically
 CC reactive with the mature MCP-5. MCP-5 (or its analogues and
 CC fragments) is used to enhance the immune response in cases of
 CC wounds or infections, while its inhibitors (e.g. the Mab) are
 CC useful as anti-inflammatory in cases of e.g. arthritis and
 CC Crohn's disease, also for treatment of atherosclerosis,
 CC angiogenesis and tumour growth (or metastasis). The MCP-5
 CC inhibitors can possibly also be used to reduce the damaging effects
 CC of chemo- and radio-therapy on myeloid progenitor cells, and to
 CC inhibit replication of HIV. MCP-5 can also be used to identify
 CC its cognate receptor, while MCP-5 peptides (or the analogues or
 CC receptors) are used to modulate MCP-5 activity and to identify
 CC MCP-5 agonists and antagonists.
 SQ Sequence 98 AA:

Query Match 100.0%; Score 44; DB 28; Length 98;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 72 eicadp 77
 |||||
 Oy 1 EICADP 6

RESULT 31
 ID W22670 standard; Protein; 98 AA.
 AC W22670:
 DT 19-MAR-1998 (first entry)
 DE Human chemokine beta10 or monocyte chemotactic protein 4.
 KW Human; chemokine beta10; Ck beta10; treatment; antagonist;
 KW solid tumour; infection; autoimmune disease; asthma; antibody;
 KW fibrotic disease; psoriasis; neurodegenerative disease;
 KW wound healing; haematopoiesis regulation; gene therapy;
 KW chromosome identification; monocyte chemotactic protein 4;
 KW Leukaemia; MCP-4.
 OS Homo sapiens.
 FH Key
 FH Peptide 1..23 Location/Qualifiers
 FT /label= sig-peptide
 FT 24..98
 FT Peptide /label= mat_peptide
 PN W09731098-A1.
 PD 28-AUG-1997.
 PF 23-FEB-1996; U02598.
 PR 23-FEB-1996; WO-U02598.
 PA (HUMA-) HUMAN GENOME SCI INC.
 PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
 PI Parmelee D, White J;
 DR WPI: 97-435153/40.
 DR N-PSDB: T85029.
 PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
 PT protein 4 - useful to treat tumours, autoimmune disease, infection,
 PT asthma and fibrosis
 PS Claim 1: Fig 2: 83pp; English.

CC The present sequence is human chemokine beta10 (Ck beta10) or
 CC monocyte chemotactic protein 4 (MCP-4), which can be used to treat
 CC patients deficient in Ck beta10, while a Ck beta10 antagonist can
 CC be used to reduce excessive levels of Ck beta10. Ck beta10 can be
 CC used to treat leukaemia, solid tumours, chronic or opportunistic
 CC infections, autoimmune diseases, asthma, fibrotic diseases,
 CC psoriasis and neurodegenerative diseases. It also promotes wound
 CC healing, regulates haematopoiesis and generates antibodies.
 CC Labelling Ck beta10 can be used to identify its cognate receptor.
 CC while cells expressing the receptor can be used to screen compounds
 CC for (ant)agonist activity. The antagonist can be used to treat
 CC rheumatoid arthritis, autoimmune, chronic inflammatory or
 CC infectious diseases, allergies, prostaglandin dependent fever and
 CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
 CC syndrome, lung inflammation and atherosclerosis. Ck beta10 cDNA can
 CC be used to isolate genes encoding similar peptides, in gene therapy
 CC and for chromosome identification.
 SQ Sequence 98 AA:

Query Match 100.0%; Score 44; DB 27; Length 98;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 72 eicadp 77
 |||||
 Oy 1 EICADP 6

RESULT 32
 ID R93087 standard; Protein; 98 AA.
 AC R93087:
 DT 27-AUG-1996 (first entry)
 DE Human chemokine beta-10.
 KW Chemokine beta-10; chemokine beta-4; Ck beta-10; Ck beta-4;
 KW cytokine; leukaemia; tumour; cancer; autoimmune disease; psoriasis;
 KW asthma; allergy; wound healing; diagnosis; therapy.
 OS Homo sapiens.
 FH Key
 FH Peptide 1..23 Location/Qualifiers
 FT /label= sig-peptide
 FT 25..98
 FT Protein /label= Mat_protein
 PN W09605856-A1.
 PD 29-FEB-1996.
 PF 23-AUG-1994; U09484.
 PR 23-AUG-1994; WO-U09484.
 PR 08-SEP-1994; ZA-U06936.
 PA (HUMA-) HUMAN GENOME SCI INC.
 PI Adams MD, Li H;
 DR WPI: 96-151145/15.
 DR N-PSDB: T17050
 PT New chemokine Ck(beta)-4 and -10 genes and polypeptide(s) - useful
 PT to treat, e.g. leukaemia, solid tumours and auto-immune diseases
 PS Claim 19; Fig 2: 53pp; English.
 CC A novel human chemokine, Ck beta-10 (R93087), was identified as
 CC the product of a cDNA clone (T17050) isolated from a 9-wk early
 CC human tissue cDNA library. The protein is structurally related to
 CC the chemokine family. Recombinant Ck beta-10 can be obtd. by
 CC incorporating the cDNA into a vector and expression of the protein
 CC in e.g. E. coli, COS or Sf9 cells. Ck beta-10 can be used to treat
 CC solid tumours, chronic infections, psoriasis, asthma and allergy,
 CC to regulate haematopoiesis, promote wound healing, and to inhibit
 CC angiogenesis. It can also be used to inhibit bone marrow stem cell
 CC colony formn. during chemotherapy.
 SQ Sequence 98 AA:

Query Match 100.0%; Score 44; DB 17; Length 98;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 72 eicadp 77
 |||||
 Oy 1 EICADP 6

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RESULT 33
ID R70800 standard; Protein; 99 AA.
AC R70800;
DE 29-AUG-1995 (first entry)
DE Chemoattractant protein MCP-1.
KM MCP-1; chemoattractant; heparanase; heparin; heparan sulfate;
OS arthritits; restenosis; cancer; wound healing.
OS Homo sapiens.
PN WO9504158-A.
PD 09-FEB-1995.
PF 26-JUL-1994; U08207.
PR 29-JUL-1993; US-099866.
PA 13-OCT-1993; US-136117.
PI (UPJO ) UPJOHN CO.
PI Hoogwerf AJ, Ledbetter SR;
DR N-PSDB; Q85370.
PT Screening for cpds. with anti-heparanase activity - by detecting
PT inhibition of heparin or heparan sulphate degradation,
PT potentially useful for treating arthritits, restenosis, cancer.
PS Claim 13; Page 49; 60pp; English.
CC Purified heparanases, prepared under reducing conditions and
CC activated with transglutaminase, are given in R70786-804. Most
CC are prepared by reverse transcription of mRNA from activated human
CC leukocytes, then cloning of the cDNA into pVL1392 baculovirus
CC vector, and expression in Sf9 cells in the presence of reduced
CC glutathione and dithiothreitol.
SQ Sequence 99 AA;

Query Match 100.0%; Score 44; DB 13; Length 99;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 73 elcadp 78
QY 1 EICADP 6

RESULT 34
ID R28663 standard; Protein; 99 AA.
AC R28663;
DE 24-MAR-1993 (first entry)
DE MCF.
KM Plasmid; monocyte chemotactic factor; MCF; translation;
KM termination; terminator; initiation; ribosome binding site;
OS RBS; promoter; tryptophan; repressor.
OS Synthetic.
FH Key Location/Qualifiers
FT peptide 1..23
FT /label= sig_peptide
FT 24..99
FT Protein /label= mat_protein
PN WO9219737-A.
PD 12-NOV-1992.
PF 27-APR-1992; J00550.
PR 09-MAY-1991; JP-135950.
PA (DAIN ) DAINIPPON PHARM CO LTD.
PI Fukui T, Matsuo N, Yamada M, Yamagishi J;
DR WPI; 92-398864/48.
DR N-PSDB; Q30748.
PT Prodn. of polypeptide(s) having monocyte chemotactic activity -
PT using expression plasmids with E. coli elements and specific
PT E.coli strains
PS Disclosure; Page 43-44; 56pp; English.
CC An expression plasmid, pMHC076 for producing MCF(76) consisting
CC of 76 amino acids was constructed. DNA encoding MCF(76) was
CC prepd. using a recombinant plasmid pMHC07.
SQ Sequence 99 AA;
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Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 73 elcadp 78
QY 1 EICADP 6

RESULT 35
ID R70801 standard; Protein; 99 AA.
AC R70801;
DE 29-AUG-1995 (first entry)
DE Chemoattractant protein MCP-3.
KM MCP-3; chemoattractant; heparanase; heparin; heparan sulfate;
OS arthritits; restenosis; cancer; wound healing.
OS Homo sapiens.
PN WO9504158-A.
PD 09-FEB-1995.
PF 26-JUL-1994; U08207.
PR 29-JUL-1993; US-099866.
PA 13-OCT-1993; US-136117.
PI (UPJO ) UPJOHN CO.
PI Hoogwerf AJ, Ledbetter SR;
DR N-PSDB; Q85371.
PT Screening for cpds. with anti-heparanase activity - by detecting
PT inhibition of heparin or heparan sulphate degradation,
PT potentially useful for treating arthritits, restenosis, cancer.
PS Claim 13; Page 50; 60pp; English.
CC Purified heparanases, prepared under reducing conditions and
CC activated with transglutaminase, are given in R70786-801. Most
CC are prepared by reverse transcription of mRNA from activated human
CC leukocytes, then cloning of the cDNA into pVL1392 baculovirus
CC vector, and expression in Sf9 cells in the presence of reduced
CC glutathione and dithiothreitol.
SQ Sequence 99 AA;

Query Match 100.0%; Score 44; DB 13; Length 99;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 73 elcadp 78
QY 1 EICADP 6

RESULT 36
ID P95387 standard; protein; 99 AA.
AC P95387;
DE 25-JUL-1989 (first entry)
DE Human monocyte chemo-attractant peptide-1.
KM Human monocyte chemo-attractant peptide; inflammatory disease; neoplasms.
OS Homo sapiens.
FH Key Location/Qualifiers
FT protein 24..99
FT /Product=MCP-1
PN US7330446-A.
PD 25-JUL-1989;
PR 30-MAR-1989; 330446.
PA 30-MAR-1989; US-330446.
PA (USSH) US Dept. Health and Human.
PI Yoshimura T, Robinson EA, Appella E, Leonard EJ;
DR WPI; 89-300683/41.
DR N-PSDB; N91337.
PT Human derived monocyte chemo-attractant peptide prods. - obtd. from human
PT glioma cell line U-105MG or peripheral blood mononuclear leukocytes.
PS Disclosure; fig 2; 66pp; English.
CC This is a human-derived monocyte chemo-attractant peptide (MCP-1) sequence
CC MCP-1 exhibits optimal chemotactic activity at a concn. of 1nM and has a
CC mol. mass of c.a. 8,400 D. MCP-1 can be used for treating infection eg
CC inflammatory disease, or for the control of neoplasms by accumulation of
CC monocytes at the site of the infection. The corresp. DNA is obt'd. by
CC chemical synthesis, by screening reverse transcripts of mRNA from
CC purified blood leukocytes or cell cultures of eg U-373 MG or KG-5.
```


SQ Sequence 99 AA:
Query Match 100.0%; Score 44; DB 2; Length 99;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
DB 73 eicadp 78
| | | | |
OY 1 EICADP 6

RESULT 37
ID R73914 standard; protein; 99 AA.
AC R73914.
DE 05-DEC-1995 (first entry)
DE Human monocyte chemoattractant factor hMCP-1.
KW Human monocyte chemoattractant factor; hMCP-1; chemokine; vaccine;
KW menigitis related homologous antigenic sequence; MRHS; RV-1;
KW immunosassay; diagnosis; treatment; prophylactic; bacterial;
KW viral.
OS Homo sapiens.
PN WO9509232-A.
PD 06-APR-1995.
PF 28-SEP-1994; CA0516.
PR 28-SEP-1993; US-127499.
PA (SHAR/) SHARMA L R.
PI (VALS/) VAN ALSTYNE D.
PI Sharma LR, Van Alstyne D;
DR WPI: 95-147431/19.
PT New peptide(s) and corresp. antibodies for the treatment of
PT meningitis (the peptide(s) corresp. to homologous antigenic
PT sites on bacterial and viral agents and on chemokine(s), used for
PT detecting and preventing meningitis
PS Claim 47; Fig 8/10; 98pp; English.
CC R73914 is the chemokine Human monocyte chemoattractant factor hMCP-1.
CC It contains the meningitis related antigenic sequences (MRHS) claimed
CC in R73895 and R73907, which are recognised by a monoclonal antibody
CC from the hybridoma Rubella virus (RV)-1. The claimed MRHS peptides
CC may be used in immunoassays to diagnose the presence of bacterial
CC and/or viral meningitis agents in a sample, or in prophylactic and
CC therapeutic meningitis treatments. The peptides may also be used as
CC vaccines against meningitis.
CC NB: Identified by matching corresponding MRHS peptides.
SQ Sequence 99 AA;

Query Match 100.0%; Score 44; DB 14; Length 99;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
DB 73 eicadp 78
| | | | |
OY 1 EICADP 6

RESULT 38
ID R24353 standard; Protein; 109 AA.
AC R24353.
DE 26-NOV-1992 (first entry)
DE Cytokine encoded by clone NC28.
KW Cytokine; plasmid pSEL1; HTLV-1; human T-lymphocyte virus;
KW mouse; alpha-globin; E. coli cloning vector; ss.
OS Synthetic.
FH Key
FT peptide
FT 1..33
FT /label= signal
FT /note= "includes 3 potential initiation sites"
FT 34..109
FT /label= cytokine
FT 39..41
FT /label= N-glycosylation
FT /note= "putative"
PD EP-488900-A.
PD 03-JUN-1992.

PF 29-NOV-1991; 403243
PR 29-NOV-1990; FR-014961.
PA (ERAP) ELF SANOFI.
PA (SNFI) SANOFI SA.
PI Caput D, Ferrara P, Miloux B, Minty A, Vita N;
DR WPI: 92-185765/23.
DR N-PSDB; Q25259.
DE New monocyte chemo:attractive cytokine - for treatment of cancer
PT and parasitic infections, e.g. leishmaniasis, leprosy or Chagas
PT disease
PS Claim 1; Fig 2; 45pp; French.
CC This protein is encoded by the NC28 clone isolated from
CC peripheral blood mononuclear cells stimulated with phorbol
CC 2-myristate-3-acetate (see Q25259). The mature protein is claimed.
CC It can be N-terminally deleted such that the mature protein starts
CC at Val 3 or at Lys 19. The leader sequence is active in animal
CC cells. See Q25258-Q25262.
SQ Sequence 109 AA;

Query Match 100.0%; Score 44; DB 2; Length 109;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
DB 83 eicadp 88
| | | | |
OY 1 EICADP 6

RESULT 39
ID W19992 standard; Protein; 700 AA.
AC W19992.
DE 27-AUG-1997 (first entry)
DE Human CANP used to identify inhibitors of interleukin-1 activity.
KW IL-1; interleukin; receptor; ligand; screening assay; inhibitor;
KW IL-1 mediated response; inflammation; inflammatory; antibody;
KW intracellular domain; CANP; calcium activated neutral protease.
OS Homo sapiens.
PN WO9640907-A1.
PD 19-DEC-1996.
PF 06-MAY-1996; U06363.
PR 07-JUN-1995; US-487942.
PA (GENY) GENETICS INST INC.
PI Graham J, Lin L;
DR WPI: 97-052315/05.
PT Interleukin-1 receptor intracellular ligand proteins and related DNA
PT - used to identify inhibitors of the proteins for treatment of
PT inflammation
PS Claim 14; Page 36-38; 54pp; English.
CC W19992 represents human calcium activated neutral protease (CANP).
CC This protein was found to have an area of high homology with an
CC interleukin-1 receptor (IL-1-R) intracellular ligand (encoded by cDNA
CC clone 14w, see T71218) and thus will display some of the same
CC properties of this protein. IL-1-R intracellular ligand proteins are
CC used to screen for agents (e.g. antibodies) that are capable of
CC inhibiting or blocking the binding of an IL-1-R intracellular ligand
CC to the intracellular domain of IL-1-R, i.e. inhibitors of IL-1
CC activity. Such agents can be used to treat inflammatory conditions.
SQ Sequence 700 AA;

Query Match 100.0%; Score 44; DB 23; Length 700;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
DB 80 eicadp 85
| | | | |
OY 1 EICADP 6

RESULT 40
ID W44721 standard; Protein; 82 AA.
AC W44721.
DE 05-JUN-1998 (first entry)
DE Amino acid sequence of the secreted protein encoded by clone AM262_11.

KW Secreted protein; antibody; immunoassay reagent;
 KM nutritional supplement; therapeutic activity; eotaxin precursor.
 OS Homo sapiens.
 FH Key Location/Qualifiers
 FT MISC_difference 15
 FT /note= "not specified"
 PN MO9746683-A2.
 PD 11-DEC-1997.
 PF 06-JUN-1997; U09878.
 PR 07-JUN-1996; US-659224.
 PA (GEM) GENETICS INST INC.
 PI Bowman M, Evans C, Jacobs K, Lavalije ER, McCly JM,
 PI Merberg D, Racie LA, Spaulding V, Treacy M,
 DR WPI: 98-042191/04.
 DR N-PSDB: V05729.
 PT Nucleic acids encoding secreted proteins from clones within ANCC
 PT 98076 - useful as immuno-modulators, anti-proliferative agents,
 PT regulators of cell differentiation and tissue growth, etc
 PS Claim 26; Page 68; 99pp; English.
 CC The present sequence represents the amino acid sequence of a
 CC secreted protein encoded by clone AM262_11. The clone was isolated
 CC from a human fetal kidney cDNA library using probe V05756. AM262_11
 CC has some identity with the human eotaxin precursor gene and protein.
 CC As such, the AM262_11 protein may share some activity. The nucleic
 CC acid can be used for expression of recombinant proteins, as tissue,
 CC molecular weight or chromosome markers, indicators of genetic disorders
 CC and sources of probes and primers. They can also be used to generate
 CC anti-protein or anti-DNA antibodies and as components of interaction
 CC trap assays etc. The protein is useful for raising antibodies, as
 CC immunoassay reagents and as nutritional supplements. The protein may
 CC possibly have any of a great variety of therapeutic activities.
 SO Sequence 82 AA;

Query Match 97.7%; Score 43; DB 29; Length 82;
 Best Local Similarity 83.3%; Pred. No. 1.14e+02;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 71 dncadp 76
 QY 1 EICADP 6

RESULT 41
 ID W14990 standard; Protein; 97 AA.
 AC W14990.
 DT 01-DEC-1997 (first entry)
 DE Human eosinocyte CC type chemokine eotaxin.
 KM Human; eosinocyte; CC type; chemokine; eotaxin; calcium; skin;
 KM small intestine; agonist; screening; antagonist; inflammation;
 KM antibody; diagnosis; assay; disorder; asthma; allergy; atopic.
 OS Homo sapiens.
 PN WO9712914-A1.
 PD 10-APR-1997.
 PF 01-OCT-1996; J02851.
 PR 28-FEB-1996; JP-041965.
 PR 05-OCT-1995; JP-259067.
 PA (SHIO) SHIONOGI & CO LTD.
 PI Harada S, Kitaura M, Nakajima T;
 DR WPI: 97-226168/20.
 DR N-PSDB: T62944.
 PT Human CC chemokine (eotaxin) active on eosinocytes - useful for
 PT screening for eotaxin (antagonist(s)), e.g. for treating
 PT inflammation
 PS Claim 2; Pages 27-28; 45pp; Japanese.
 CC The present sequence is the human eosinocyte, CC type
 CC chemokine, eotaxin, which increases calcium flux in human
 CC eosinocytes and is a human analogue of guinea pig eotaxin. The
 CC eotaxin was derived from human small intestine, and is a specific
 CC agonist for human CC type chemokine receptor 3. It may be used to
 CC screen potential agonists and antagonists, which may be useful as
 CC anti-inflammatory. An anti-eotaxin antibody may be used in
 CC diagnostic assays for eotaxin, which is implicated in inflammatory
 CC disorders, e.g. asthma, other allergies and atopic skin

CC Inflammation.
 SQ Sequence 97 AA;

Query Match 97.7%; Score 43; DB 24; Length 97;
 Best Local Similarity 83.3%; Pred. No. 1.14e+02;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 71 dncadp 76
 QY 1 EICADP 6

RESULT 42
 ID W10099 standard; Protein; 97 AA.
 AC W10099;
 DT 30-SEP-1997 (first entry)
 DE Human eotaxin
 KM Human; eotaxin; eosinophil; chemoattractant; stimulation;
 KM accumulation; attraction; chemotaxis; diagnosis; prevention;
 KM treatment; disease; inflammation; allergy; asthma; rhinitis;
 KM hypersensitivity; lung; pneumonia; Loeffler's syndrome;
 KM interstitial; ILD; idiopathic pulmonary fibrosis;
 KM rheumatoid arthritis; systemic; lupus erythematosus; SLE;
 KM ankylosing spondylitis; sclerosis; Sjogren's; polymyositis;
 KM dermatomyositis; bowel; anaphylaxis; drug; penicillin;
 KM cephalosporin; insect sting; Crohn's; ulcerative colitis;
 KM spondyloarthropathy; scleroderma; psoriasis; dermatosis;
 KM dermatitis; eczema; atopic; urticaria; necrotizing; cutaneous;
 KM vasculitis; myositis; fascitis; multiple sclerosis;
 KM myasthenia gravis; juvenile onset diabetes; glomerulonephritis;
 KM autoimmune; thyroiditis; Bechet's; graft; rejection;
 KM transplantation; allograft; graft versus host; cancer;
 KM leukocyte infiltration; reperfusion injury; atherosclerosis;
 KM haematologic malignancy; septic; endotoxic; shock;
 KM polymyositis; dermatomyositis; immunosuppression; immunodeficiency;
 KM AIDS; radiation therapy; chemotherapy; autoimmune; corticosteroid;
 infection.
 OS Homo sapiens.
 PN WO9700960-A1.
 PD 09-JAN-1997.
 PF 21-JUN-1996; U10723.
 PF 23-JUN-1995; US-494093.
 PA (LEUK-) LEUKOSTITE INC.
 PI Mackay C, Newman W, Ponath PD, Qin S, Ringler DJ;
 DR WPI: 97-087387/08.
 DR N-PSDB: T58777.
 PT New isolated human eotaxin gene - used to develop prods. for the
 PT diagnosis and treatment of e.g. inflammation, allergies, auto-immune
 PT disease, infections and tumours
 PS Claim 3; Pages 95-96; 130pp; English.
 CC The present sequence is human eotaxin (hE), an eosinophil
 CC specific chemoattractant capable of stimulating eosinophil
 CC accumulation and/or attracting eosinophils (including chemotaxis).
 CC It can be used to develop products for the diagnosis, prevention or
 CC treatment of the associated diseases or conditions. The products can
 CC be used to treat inflammatory or allergic diseases and conditions,
 CC including respiratory allergic diseases (e.g. asthma, allergic
 CC rhinitis, hypersensitivity lung diseases or pneumonitis,
 CC eosinophilic pneumonias such as Loeffler's syndrome and chronic
 CC eosinophilic pneumonia, interstitial lung diseases (ILD) such as
 CC idiopathic pulmonary fibrosis or ILD associated with rheumatoid
 CC arthritis, systemic lupus erythematosus (SLE), ankylosing
 CC spondylitis, systemic sclerosis, Sjogren's syndrome, polymyositis
 CC or dermatomyositis), systemic anaphylaxis or hypersensitivity
 CC responses, drug allergies (e.g. to penicillin and cephalosporins),
 CC insect sting allergies, inflammatory bowel diseases (e.g. Crohn's
 CC disease and ulcerative colitis), spondyloarthropathies,
 CC scleroderma, psoriasis and inflammatory dermatoses (e.g.
 CC dermatitis, eczema, atopic dermatitis, allergic contact dermatitis,
 CC urticaria and neuroticism, cutaneous and hypersensitivity
 CC vasculitis), eosinophilic myositis and fascitis, multiple
 CC sclerosis, SLE, myasthenia gravis, juvenile onset diabetes,
 CC glomerulonephritis, autoimmune thyroiditis, Bechet's disease, graft

CC rejection (e.g. in transplantation) including allograft rejection or
 CC graft versus host disease and cancers with leukocyte infiltration
 CC of the skin or organs. The products can also be used to treat other
 CC diseases or conditions requiring the inhibition of undesirable
 CC inflammatory responses, including reperfusion injury.
 CC atherosclerosis, certain haematologic malignancies, cytokine
 CC induced toxicity (e.g. septic or endotoxic shock), polymyositis,
 CC dermatomyositis, immunosuppression (e.g. in individuals with
 CC immunodeficiency syndromes such as AIDS, undergoing radiation
 CC therapy, chemotherapy, therapy for autoimmune disease or other drug
 CC therapy, such as corticosteroid therapy, which causes
 CC immunosuppression), immunosuppression due to (e.g. congenital)
 CC deficiency (e.g. in eotaxin) or infectious diseases such as parasitic
 CC diseases.
 CC Degenerate primers based on the guinea pig eotaxin amino acid
 CC sequence were used for the reverse transcriptase polymerase chain
 CC reaction (RT-PCR) amplification of RNA isolated from inflamed
 CC eosinophilic lung tissue obtained from Balb/c mice sensitised to
 CC ovalbumin. The amplification product was used as a probe to screen
 CC a human genomic library in vector EMBL3 Sp6/T7 to obtain the hE
 CC gene.

SO Sequence 97 AA;

Query Match 97.7%; Score 43; DB 23; Length 97;
 Best Local Similarity 83.3%; Pred. No. 1.14e+02;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 71 dicadp 76
 :|||||
 QY 1 EICADP 6

RESULT 43
 ID W00667 standard; Protein: 97 AA.
 AC W00667:
 DT 02-MAY-1997 (first entry)
 DE Pancreas-expressed chemokine-1.
 KW Pancreas-derived chemokine; PANEC-1; PANEC-2; diagnosis;
 OS Inflammation; disease; cancer.
 OS Homo sapiens.
 PN W09625497-A1.
 PD 22-AUG-1996.
 PF 16-FEB-1996; U02225.
 PR 17-FEB-1995; US-390740.
 PA (INCY-) INCYTE PHARM INC.
 PI Bandman O, Coleman R, Wilde CG;
 DR WPI: 96-393398/39.
 DR N-PSDB: T33527.
 PT Nucleotide and protein sequences for human PANEC-1 and PANEC-2 -
 PT useful in diagnosis and therapy of pancreatic diseases
 PS Claim 8: Page 28-29; 43pp; English.
 CC The sequences given in W00667-68 represent pancreas-derived chemokines,
 CC PANEC-1 and PANEC-2. These chemokines are highly expressed and
 CC specifically expressed in the pancreas and may therefore be used in
 CC diagnostic assays based on chemokine production in cases of
 CC inflammation or disease affecting the pancreas. These assays allow
 CC the early and accurate diagnosis of pancreatic disorders, and can
 CC differentiate between invasive diseases and genetic syndromes.
 SO Sequence 97 AA;

Query Match 97.7%; Score 43; DB 21; Length 97;
 Best Local Similarity 83.3%; Pred. No. 1.14e+02;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 71 dicadp 76
 :|||||
 QY 1 EICADP 6

RESULT 44
 ID R38940 standard; Protein: 69 AA.
 AC R38940;
 DT 23-NOV-1993 (first entry)

DE LD78 Phe28>Glu, Glu48>Glu.
 KW SCI; stem cell inhibition; LD78; ACT2; MIP-1alpha;
 KW macrophage inflammatory protein; multimer; tumour therapy;
 KW psoriasis; hyperproliferation.
 OS Homo sapiens.
 PN W09313206-A.
 PD 08-JUL-1993.
 PF 23-DEC-1992; G02390.
 PR 23-DEC-1991; GB-027319.
 PR 14-OCT-1992; GB-021587.
 PA (BRIT-) BRITISH BIO-TECHNOLOGY LTD.
 PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
 PI Hunter WG;
 DR WPI: 93-227322/28.
 PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
 PT alpha - unable to form stable multimer higher than dodecamer,
 PT providing better tissue penetration
 PS Example 15; Page 35; 294pp; English.
 CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-
 CC 1alpha, having mutations to prevent or reduce multimer formation
 CC beyond certain stages (e.g. dodecamer), have improved solution
 CC properties leading to enhanced productivity and greater therapeutic
 CC utility as stem cell protective agents. The analogues may be used
 CC in tumour therapy, psoriasis or other diseases involving hyper-
 CC proliferation stem cells.
 CC Most pref. LD78 analogues are Phe12>Glu, Lys44>Ser, Arg17>Glu (with
 CC Glu18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha
 CC analogues correspond to the pref. LD78 analogues.
 SO Sequence 69 AA;

Query Match 95.5%; Score 42; DB 7; Length 69;
 Best Local Similarity 83.3%; Pred. No. 1.46e+02;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 48 evcadp 53
 :|||||
 QY 1 EICADP 6

RESULT 45
 ID R38926 standard; Protein: 69 AA.
 AC R38926;
 DT 23-NOV-1993 (first entry)
 DE LD78 Glu48>Glu.
 KW SCI; stem cell inhibition; LD78; ACT2; MIP-1alpha;
 KW macrophage inflammatory protein; multimer; tumour therapy;
 KW psoriasis; hyperproliferation.
 OS Homo sapiens.
 PN W09313206-A.
 PD 08-JUL-1993.
 PF 23-DEC-1992; G02390.
 PR 23-DEC-1991; GB-027319.
 PR 14-OCT-1992; GB-021587.
 PA (BRIT-) BRITISH BIO-TECHNOLOGY LTD.
 PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
 PI Hunter WG;
 DR WPI: 93-227322/28.
 PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
 PT alpha - unable to form stable multimer higher than dodecamer,
 PT providing better tissue penetration
 PS Example 1; Page 48-50; 294pp; English.
 CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-
 CC 1alpha, having mutations to prevent or reduce multimer formation
 CC beyond certain stages (e.g. dodecamer), have improved solution
 CC properties leading to enhanced productivity and greater therapeutic
 CC utility as stem cell protective agents. The analogues may be used
 CC in tumour therapy, psoriasis or other diseases involving hyper-
 CC proliferative stem cells.
 CC Most pref. LD78 analogues are Phe12>Glu, Lys44>Ser, Arg17>Glu (with
 CC Glu18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha
 CC analogues correspond to the pref. LD78 analogues.
 SO Sequence 69 AA;

Query Match 95.5%; Score 42; DB 7; Length 69;
 Best Local Similarity 83.3%; Pred. No. 1.46e+02;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 48 ewcadp 53
 1:|||||
 QY 1 EICADP 6

RESULT 46
 ID R70804 standard; Protein: 72 AA.
 AC R70804;
 DT 29-AUG-1995 (first entry)
 DE Chemotractant MCP-2; heparanase; heparin; heparan sulfate;
 KW Chemotractant; MCP-2; heparanase; heparin; heparan sulfate;
 KW arthritis; restenosis; cancer; wound healing.
 OS Homo sapiens.
 PN WO9504158-A.
 PD 09-FEB-1995.
 PF 26-JUL-1994; U08207.
 PR 29-JUL-1993; US-099866.
 PR 13-OCT-1993; US-136117.
 PA (UPJO) UPJOHN CO.
 PI Hoogwerf AJ, Ledbetter SR;
 DR WPI: 95-082239/11.
 PT Screening for cpds. with anti-heparanase activity - by detecting
 PT inhibition of heparin or heparan sulphate degradation,
 PT potentially useful for treating arthritis, restenosis, cancer.
 PS Claim 13: Page 53; 60PP; English.
 CC Purified heparanases, prepared under reducing conditions and
 CC activated with transglutaminase, are given in R70766-804. Most
 CC are prepared by reverse transcription of mRNA from activated human
 CC leucocytes, then cloning of the cDNA into pVL1392 baculovirus
 CC vector, and expression in Sf9 cells in the presence of reduced
 CC glutathione and dithiothreitol.
 SQ Sequence 72 AA;

Query Match 95.5%; Score 42; DB 13; Length 72;
 Best Local Similarity 83.3%; Pred. No. 1.46e+02;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 46 ewcadp 51
 1:|||||
 QY 1 EICADP 6

RESULT 47
 ID W42072 standard; Protein: 109 AA.
 AC W42072;
 DT 09-JUN-1998 (first entry)
 DE Human MCP proteoglycan.
 KW Human monocyte chemotactic protein; MCP; Incyte clone; allergy;
 KW macrophage; diagnostic assay; body fluid; lung; biopsy;
 KW autoimmune disease; AIDS; asthma; rheumatoid arthritis; NIDDM;
 KW breast cancer; bladder.
 OS Homo sapiens.
 PN WO9802459-A1.
 PD 22-JAN-1998.
 PF 15-JUL-1997; U12349.
 PR 15-JUL-1996; US-683655.
 PA (INCY-) INCYTE PHARM INC.
 PI Au-Young J, Coleman R, Hillman JL;
 DR WPI: 98-110529/10.
 DT N-PSDB: V09218.
 PT New human monocyte chemotactic protein - has homology to CC
 PT chemokines) useful for identifying agent for treating auto-immune
 PT diseases or allergic responses
 PS Claim 1: Pages 38-39; 33pp; English.
 CC The is a human monocyte chemotactic protein sequence. Its cDNA was
 CC first identified in Incyte clone 965517 from a breast cDNA library.
 CC Antisense nucleotides can be used to control human MCP expression
 CC especially where it may lead to inappropriate monocyte or macrophage
 CC activity causing damage associated with allergic responses to organs

CC such as the lungs. Antisense nucleotides and MCP cDNA may be used
 CC in diagnostic assays of body fluids or biopsied tissues to detect
 CC expression levels of MCP. MCP cDNA may also be useful for
 CC treatment of disorders such as asthma, rheumatoid arthritis, NIDDM
 CC or cancer of the breast or bladder. Human MCP protein can be used to
 CC identify agonists, antagonists or inhibitors to modulate the activity of
 CC MCP in allergic responses or autoimmune diseases such as AIDS.
 SQ Sequence 109 AA;

Query Match 95.5%; Score 42; DB 29; Length 109;
 Best Local Similarity 83.3%; Pred. No. 1.46e+02;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 83 ewcadp 88
 1:|||||
 QY 1 EICADP 6

RESULT 48
 ID W26655 standard; Protein: 109 AA.
 AC W26655;
 DT 16-FEB-1998 (first entry)
 DE Human beta-chemokine H1305 (MCP-2).
 KW H1305; MCP-2; chemokine; human; chemotractant; chemotaxis;
 KW virus infection; HIV; therapy; wound healing; tumour; antibody.
 OS Homo sapiens.
 PN WO9725427-A1.
 PD 17-JUL-1997.
 PF 10-JAN-1997; U00379.
 PR 12-JAN-1996; US-586395.
 PA (GEMT) GENETICS INST INC.
 PI Lavallie ER, McCoy JM, Racie LA;
 DR WPI: 97-372866/34.
 DT N-PSDB: T91023.
 PT New human beta-chemokine, H1305 and corresponding DNA - used in the
 PT treatment of viral infection, e.g. HIV, and in wound healing
 PS Claim 1; Page 12-13; 21pp; English.
 CC This protein comprises human beta-chemokine H1305, also known as
 CC MCP-2. Its sequence was deduced from a cloned cDNA clone (see
 CC T91023) isolated from a human peripheral blood mononuclear cell
 CC cDNA library. Also claimed are: (1) a host cell, preferably
 CC a mammalian, transformed with a H1305 polynucleotide operably linked
 CC to an expression control sequence; (2) a recombinantly produced
 CC H1305 protein; and (3) a composition comprising an antibody which
 CC specifically reacts with the H1305 protein. The H1305 protein
 CC may be used in a composition for the treatment of a mammalian
 CC subject (claimed). It is thought to have chemokine activities and
 CC may therefore have an effect on chemotaxis or migration of blood
 CC cells. It may be useful for inhibiting viral replication,
 CC including replication of HIV, and may also be used for treatment of
 CC wounds and to raise monoclonal and polyclonal antibodies which
 CC specifically react with H1305. Such antibodies may be used for
 CC therapy of certain tumours as they are capable of blocking the
 CC ligand binding of the H1305 protein or may promote clearance of
 CC the protein from the patient.
 SQ Sequence 109 AA;

Query Match 95.5%; Score 42; DB 26; Length 109;
 Best Local Similarity 83.3%; Pred. No. 1.46e+02;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 83 ewcadp 88
 1:|||||
 QY 1 EICADP 6

RESULT 49
 ID W23643 standard; Protein: 89 AA.
 AC W23643;
 DT 08-JAN-1998 (first entry)
 DE Human dendritic cell tactin.
 KW Human dendritic cell tactin; DC tactin; C-C chemokine family; dendrite;
 KW haematopoietic cell; rheumatoid arthritis; psoriasis; atopic dermatitis;

KW asthma: antagonist; agonist; gene therapy; transgenic animal.
 OS Homo sapiens.
 FH Key Location/Qualifiers
 FT Peptide 1..20
 FT /label= "signal_peptide"
 FT /note= "predicted"
 FT Protein 21..89
 FT /label= "DC_tactin"
 FT /note= "Mature protein includes 4 conserved
 cysteine residues at positions 30, 31, 54
 and 70"
 FT
 FT
 PN MO9729125-A1.
 PD 14-AUG-1997.
 PF 06-FEB-1997; U01247.
 PR 09-FEB-1996; US-599233.
 PA (SCHE) SCHERING CORP.
 PA (UYNI -) UNIV NIMMGEN.
 PI Adema GJ, Figgdor C, McClanahan TK;
 DR WPI: 97-415297/38.
 DR N-PSDB: T78167.
 PT Primate dendritic cell tactin, a chemo-attractant for haematopoietic
 PT cells - useful for diagnosis and treatment of e.g. auto-immune
 PT disease, infections, cancer etc., and in vaccines
 PS Claim 2; Page 53; 62pp: English.
 CC This is the sequence of human dendritic cell (DC) tactin, a
 CC new member of the C-C chemokine family. DC tactin is a chemokine which
 CC attracts or activates haematopoietic cells and possibly also neural
 CC cells. Antagonists of the chemokine, such as antibodies, are used to
 CC regulate and/or prevent autoimmunity, tissue rejection and undesired
 CC response to antigens (e.g. in cases of rheumatoid arthritis, psoriasis,
 CC atopic dermatitis, asthma etc.), while agonists (such as DC tactin
 CC itself) are used to regulate and/or treat infectious disease, response
 CC or cancer, by attracting haematopoietic cells to dendritic cells, also
 CC as vaccine adjuvant for immunocompromised subjects. The cDNA encoding
 CC DC tactin is useful in gene therapy and generation of transgenic
 CC animals.
 SQ Sequence 89 AA:
 Query Match 93.2%; Score 41; DB 25; Length 89;
 Best Local Similarity 83.3%; Pred. No. 1.88e+02;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
 Db 68 gicadp 73
 QY 1 EICADP 6
 RESULT 50
 ID R76127 standard; Protein; 89 AA.
 AC R76127;
 DT 02-DEC-1995 (first entry)
 DE Macrophage inflammatory protein-4.
 KW Macrophage inflammatory protein-4; therapeutic; diagnostic.
 OS Homo sapiens.
 FH Key Location/Qualifiers
 FT Peptide 1..19
 FT /note= "signal peptide"
 FT
 PN MO9517092-A.
 PD 29-JUN-1995.
 PF 28-JUN-1994; U07256.
 PR 22-DEC-1993; US-173209.
 PR 08-MAR-1994; US-208339.
 PA (HUMA -) HUMAN GENOME SCI INC.
 PI Adams MD, Li H, Rosen CA, Ruben S;
 DR WPI: 95-240404/31.
 DR N-PSDB: O94093.
 PT cDNA encoding human macrophage inflammatory proteins -3, -4 and
 PT -1-gamma - used in immuno-regulation including inflammatory
 PT activity, haematopoiesis, treatment of psoriasis or solid tumours.
 PS Claim 12; Figure 2; 60pp; English.
 CC Human macrophage inflammatory protein-4 (MIP-4) is used in
 CC therapeutic and diagnostic applications for detecting and
 CC treating infections, cancer, inflammation, myelopietic

CC dysfunction and autoimmune diseases. Antagonists/inhibitors
 CC of MIP-4 are used to treat diseases involving overexpression
 CC of MIP-4, including silicosis, arteriosclerosis, autoimmune and
 CC chronic inflammatory and infective diseases, aplastic anaemia,
 CC etc.
 SQ Sequence 89 AA:
 Query Match 93.2%; Score 41; DB 14; Length 89;
 Best Local Similarity 83.3%; Pred. No. 1.88e+02;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
 Db 68 gicadp 73
 QY 1 EICADP 6
 Search completed: Thu Apr 1 14:04:49 1999
 Job time : 24 secs.

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Msrch_dp protein - protein database search, using Smith-Waterman algorithm

Run on: Thu Apr 1 07:29:48 1999; Msrch time 3.02 Seconds

Tabular output not generated. 74.507 Million cell updates/sec

Title: >US-08-927-939-8

Description: (1-6) from US08927939.pep

Perfect Score: 44

Sequence: 1 EICADP 6

Scoring table: PAM 150

Gap 15

Searched: 116738 segs, 37463448 residues

Post-processing: Minimum Match 0%

Listing first 100 summaries

Database: plr58

1:plr1 2:plr2 3:plr3 4:plr4

Statistics: Mean 18.638; Variance 24.588; scale 0.758

Pred. No. is the number of results predicted by chance to have a

score greater than or equal to the score of the result being printed,

and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description	Pred. No.
1	44	100.0	99	2	A60299	monocyte chemoattract
2	44	100.0	109	2	A54678	monocyte chemoattract
3	44	100.0	148	2	S07723	immediate-early serum
4	44	100.0	700	1	C1HMH2	calpain (EC 3.4.22.17
5	44	100.0	700	2	S38361	calpain (EC 3.4.22.17
6	43	97.7	97	2	JC4912	eotaxin - human
7	43	97.7	97	2	JC2136	monocyte chemoattract
8	42	95.5	64	2	F69231	hypothetical protein
9	42	95.5	99	2	G55295	monocyte chemoattract
10	42	95.5	99	2	IC2417	monocyte chemoattract
11	42	95.5	120	2	IA6147	monocyte chemoattract
12	42	95.5	148	2	A30209	PDGF-inducible JE gly
13	41	93.2	92	2	I52322	macrophage inflammatory
14	41	93.2	906	2	G69531	alanyl-tRNA synthetase
15	40	90.9	283	2	JC5579	chymotrypsin-like ser
16	40	90.9	360	2	JA9188	electon transfer fla
17	40	90.9	552	2	A70709	probable p17a protei
18	39	88.6	50	2	C60407	monocyte adherence-in
19	39	88.6	92	2	A30574	macrophage inflammatory
20	39	88.6	92	1	A31767	macrophage inflammatory
21	39	88.6	93	2	B35673	LD78-beta protein pre
22	39	88.6	99	2	A39296	monocyte chemoattract
23	39	88.6	99	2	JC2336	monocyte chemoattract

24	39	88.6	116	2	I49555	gene C10 protein - mo
25	39	88.6	296	2	S76512	hypothetical protein
26	39	88.6	429	2	S29044	endo glucanase A precu
27	39	88.6	448	2	A27631	cellulase (EC 3.2.1.4
28	38	86.4	49	2	A35971	mast cell growth fact
29	38	86.4	51	2	B35971	mast cell growth fact
30	38	86.4	92	2	C30552	macrophage inflamma
31	38	86.4	96	2	I48099	eotaxin precursor - g
32	38	86.4	96	2	JC2478	eotaxin - rat
33	38	86.4	114	1	ETMSL	lymphocytic precursor
34	38	86.4	125	2	I46857	monocyte chemoattract
35	38	86.4	138	2	B63655	hypothetical protein
36	38	86.4	201	2	S35981	hypothetical protein
37	38	86.4	245	2	A37934	mast cell growth fact
38	38	86.4	273	2	A43751	mast cell growth fact
39	38	86.4	273	2	S65801	mast cell growth fact
40	38	86.4	344	2	G70036	spore coat polysaccha
41	38	86.4	468	2	A55476	protein kinase (EC 2.
42	38	86.4	546	1	B24707	NADH dehydrogenase (u
43	38	86.4	898	2	A63092	alanine--tRNA ligase
44	38	86.4	1446	1	A45344	immediate-early prote
45	38	86.4	1460	1	EDBEIF	immediate-early prote
46	38	86.4	1497	2	S72250	sex-determining trans
47	38	86.4	1820	2	A55494	latent transforming g
48	38	86.4	3461	2	S58870	reelin - mouse
49	37	84.1	114	2	A55010	neutrophil-activating
50	37	84.1	119	2	S53460	hypothetical protein
51	37	84.1	120	2	JE0177	lymphocyte and monoc
52	37	84.1	620	1	WZBEC1	gene 28 protein - equ
53	37	84.1	688	2	S57131	hypothetical protein
54	37	84.1	810	2	S57196	calpain (EC 3.4.22.17
55	37	84.1	821	1	C1HMH3	calpain (EC 3.4.22.17
56	37	84.1	821	1	B34488	calpain (EC 3.4.22.17
57	37	84.1	841	2	A43254	calpain (EC 3.4.22.17
58	37	84.1	4427	2	PN0637	polyketide synthase (
59	36	81.8	37	2	B70566	probable ribosomal pr
60	36	81.8	83	2	C41378	hypothetical protein
61	36	81.8	91	1	A46539	monocyte chemoattract
62	36	81.8	91	1	A28815	monocyte chemoattract
63	36	81.8	92	2	I46730	immune activation gen
64	36	81.8	114	1	ETHUL	lymphocytic precursor
65	36	81.8	119	2	PO0067	T-cell receptor beta
66	36	81.8	136	2	A65083	hypothetical protein
67	36	81.8	145	2	I39564	ORF - Alcaligenes eu
68	36	81.8	174	2	C69533	NAD(P)H-flavin oxidor
69	36	81.8	213	2	B42985	3-oxoadipate CoA-tran
70	36	81.8	218	2	S53354	calflagin Tb-24 - Try
71	36	81.8	229	2	S53355	calflagin Tb-1.7 - Tr
72	36	81.8	233	2	B24796	glyceralddehyde-3-phos
73	36	81.8	245	2	S76632	hypothetical protein
74	36	81.8	297	1	PRSMAG	proteinase A (EC 3.4.
75	36	81.8	299	1	PRSMAG	proteinase B (EC 3.4.
76	36	81.8	336	2	A24430	glyceralddehyde-3-phos
77	36	81.8	369	2	S56638	glyceralddehyde-3-phos
78	36	81.8	379	2	B70777	mitogen-activated pro
79	36	81.8	395	2	A40270	hypothetical protein
80	36	81.8	396	2	JO1285	cyclin E - human
81	36	81.8	397	2	S45496	glyceralddehyde-3-phos
82	36	81.8	407	2	S53353	isp7 protein - fission
83	36	81.8	434	2	C70651	calflagin Tb-44A - Tr
84	36	81.8	434	2	C70651	hypothetical protein
85	36	81.8	448	2	S74380	biotin carboxylase ac
86	36	81.8	515	2	S59811	vacuolar segregation
87	36	81.8	573	2	C71312	probable pyrophosphat
88	36	81.8	610	1	BVECR0	DNA helicase reco - E
89	36	81.8	640	2	A30452	uromodulin precursor
90	36	81.8	761	2	B64506	DNA topoisomerase (EC
91	36	81.8	854	2	C71533	probable c1pc protein
92	36	81.8	902	2	S26002	gene cxi intron 1 pr
93	36	81.8	1041	2	PQ0442	polyprotein - barley
94	36	81.8	1146	2	B35962	protein-tyrosine kina
95	36	81.8	1182	2	A35962	protein-tyrosine kina
96	36	81.8	1202	2	PQ0440	polyprotein - barley

97 36 81.8 1470 2 S45323 genome polypeptide 1 2.46e+02
 98 36 81.8 1790 1 MAFB1 laminin beta-1 chain 2.46e+02
 99 36 81.8 2410 1 J01948 genome polypeptide 1 2.46e+02
 100 36 81.8 2412 1 J01537 genome polypeptide 1 2.46e+02

RESULT 1 ALIGNMENTS

ENTRY 1 A60299 #type complete
 TITLE monocyte chemoattractant protein 1 precursor - human
 ALTERNATE_NAMES GDF-1; glioma-derived monocyte chemotactic factor 1; MCAF;
 MCP-1; monocyte chemotactic factor 1; monocyte secretory
 protein; tumor-derived chemotactic factor
 ORGANISM glioma-derived chemotactic factor 2 (GDF-2)
 #formal_name Homo sapiens #common_name man
 DATE 20-Feb-1993 #sequence_revision 20-Feb-1993 #text_change
 20-Mar-1998

CONTAINS
 A35474; A33476; S03339; I51841; A60299; A32300; A32396;
 A34561; I57488; J01096

ACCESSIONS
 #authors A33474
 #journal Shyy, Y.J.; Li, Y.S.; Kolattukudy, P.E.
 #title Biochem. Biophys. Res. Commun. (1990) 169:346-351
 Structure of human monocyte chemotactic protein gene and its
 regulation by TPA.
 #cross-references M01D:90290466

REFERENCE
 #accession A33474
 #molecule_type DNA
 #residues 1-99 #label SHY
 #cross-references GB:M37719; NID:g187447; PID:g487124

ENTRY 1 A33476
 #authors Rollins, B.J.; Stier, P.; Ernst, T.; Wong, G.G.
 #journal Mol. Cell. Biol. (1989) 9:4687-4693
 #title The human homolog of the JE gene encodes a monocyte secretory
 protein.
 #cross-references M01D:90097880

REFERENCE
 #accession A33476
 #molecule_type mRNA
 #residues 1-99 #label ROL
 #cross-references GB:M30816; GB:M31625; GB:M31626; NID:g188701;
 PID:g386961

ENTRY 1 S03339
 #authors Yoshimura, T.; Yuhki, N.; Moore, S.K.; Appella, E.; Lerman,
 M.I.; Leonard, E.J.
 #journal FEBS Lett. (1989) 244:487-493
 #title Human monocyte chemoattractant protein-1 (MCP-1). Full-length
 cDNA cloning, expression in mitogen-stimulated blood
 mononuclear leukocytes, and sequence similarity to mouse
 competence gene JE.
 #cross-references M01D:89153605

REFERENCE
 #accession S03339
 #status not compared with conceptual translation
 #molecule_type mRNA
 #residues 1-99 #label YOS
 #cross-references GB:X14768; NID:g34513; PID:g34514
 #experimental_source glioma cell line U-105MG

ENTRY 1 I51841
 #authors Yoshimura, T.; Leonard, E.J.
 #journal Adv. Exp. Med. Biol. (1991) 305:47-56
 #title Human monocyte chemoattractant protein-1 (MCP-1).
 #cross-references M01D:92095166

REFERENCE
 #accession I51841
 #status preliminary; translated from GB/EMBL/DBJ
 #molecule_type mRNA
 #residues 1-99 #label Y02
 #cross-references GB:S71513; NID:g240867; PID:g240868

ENTRY 1 A60299
 #authors Botlazzi, B.; Colotta, F.; Sica, A.; Noll, N.; Mantovani,
 A.
 #journal Int. J. Cancer (1990) 45:795-797
 #title A chemoattractant expressed in human sarcoma cells
 (tumor-derived chemotactic factor, TDCF) is identical to
 monocyte chemoattractant protein-1/monocyte chemotactic and

#accession A60299 activating factor (MCP-1/MCAF).
 #status not compared with conceptual translation
 #molecule_type mRNA
 #residues 1-99 #label BOT

REFERENCE
 #authors Futurani, Y.; Nomura, H.; Notake, M.; Oyama, Y.; Fukui, T.;
 Yamada, M.; Larsen, C.G.; Oppenheim, J.U.; Matsushima, K.
 #journal Biochem. Biophys. Res. Commun. (1989) 159:249-255
 #title Cloning and sequencing of the cDNA for human monocyte
 chemotactic and activating factor (MCAF).
 #cross-references M01D:89165862

REFERENCE
 #accession A32300
 #status not compared with conceptual translation
 #molecule_type mRNA
 #residues 1-99 #label FUR
 #cross-references GB:M24545; NID:g187434; PID:g307163

ENTRY 1 A32396
 #authors Robinson, E.A.; Yoshimura, T.; Leonard, E.J.; Tanaka, S.;
 Griffin, P.R.; Shabanowitz, J.; Hunt, D.F.; Appella, E.
 #journal Proc. Natl. Acad. Sci. U.S.A. (1989) 86:1850-1854
 #title Complete amino acid sequence of a human monocyte
 chemoattractant, a putative mediator of cellular immune
 reactions.
 #cross-references M01D:89184525

REFERENCE
 #accession A32396
 #molecule_type protein
 #residues 'X', 25-99 #label ROB
 #cross-references M01D:90211336

ENTRY 1 A34561
 #authors Decock, B.; Conings, R.; Lenaerts, J.P.; Billiau, A.; Van
 Damme, J.
 #journal Biochem. Biophys. Res. Commun. (1990) 167:904-909
 #title Identification of the monocyte chemotactic protein from human
 osteosarcoma cells and monocytes: detection of a novel
 N-terminally processed form.
 #cross-references M01D:90211336

REFERENCE
 #accession A34561
 #molecule_type protein
 #residues 29-33, 'XX', 36-52; 82-92 #label DEC
 #cross-references M01D:90211336

ENTRY 1 I57488
 #authors Li, Y.S.; Shyy, Y.J.; Wright, J.G.; Valente, A.J.; Cornhill,
 J.F.; Kolattukudy, P.E.
 #journal Mol. Cell. Biochem. (1993) 126:61-68
 #title The expression of monocyte chemotactic protein (MCP-1) in
 human vascular endothelium in vitro and in vivo.
 #cross-references M01D:94150478

REFERENCE
 #accession I57488
 #status translated from GB/EMBL/DBJ
 #molecule_type mRNA
 #residues 1-99 #label LIT
 #cross-references GB:S69738; NID:g545464; PID:g545465

ENTRY 1 J01096
 #authors Ye, Q.N.; Su, G.F.; Yuan, Y.; Huang, C.F.
 #journal Chinese J. Microbiol. Immunol. (1994) 14:29-32
 #title The PCR, cloning and sequencing of human monocyte
 chemoattractant protein-1 (MCP-1) gene.
 #accession J01096

REFERENCE
 #accession J01096
 #molecule_type mRNA
 #residues 24-28, 'Q', 30-99 #label YEQ

ENTRY 1 GDB:SCYA2
 #status GDB:125279; OMIM:158105
 #map_position 17q11.2-17q12
 #CLASSIFICATION #superfamily macrophage inflammatory protein
 #KEYWORDS cytokine; glycoprotein; inflammation; pyroglutamic acid
 #FEATURES
 1-23 #domain signal sequence #status predicted #label SIG
 24-99 #product monocyte chemoattractant protein 1 #status
 experimental #label MAT
 29-99 #product monocyte chemoattractant protein 1, short form
 #status experimental #label MAT2
 24 #modified site pyroglutamic acid (Gln) (in
 mature form) #status experimental


```
37      #binding-site carbohydrate (asn) (covalent) #status
      #predicted
SUMMARY      #length 99 #molecular-weight 11025 #checksum 7984
Query Match      100.0%; Score 44; DB 2; Length 99;
Best Local Similarity 100.0%; Pred. No. 6.98e+00;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db      73 EICADP 78
      1 EICADP 6

RESULT 2
ENTRY      A54678      #type complete
TITLE      monocytic chemotactic protein 3 precursor - human
ALTERNATE_NAMES      monocytic chemotactant protein MCP-3
ORGANISM      #formal_name Homo sapiens #common_name man
DATE      28-Oct-1994 #sequence_revision 28-Oct-1994 #text_change
ACCESSIONS      A54678; JCI1478; S32222
REFERENCE      A54678
#authors      Opdenakker, G.; Froyen, G.; Fiten, P.; Proost, P.; Van Damme, J.
#journal      Genomics (1994) 21:403-408
#title      The human MCP-3 gene (SCTA7): cloning, sequence analysis, and
      assignment to the C-C chemokine gene cluster on chromosome
      17q11.2-q12.
#accession      A54678
#molecule_type DNA
#residues      1-109 #label OPD
REFERENCE      #cross-references GB:X72309
      JCI1478
#authors      Opdenakker, G.; Froyen, G.; Fiten, P.; Proost, P.; Van Damme, J.
#journal      J.
#title      Biochem. Biophys. Res. Commun. (1993) 191:535-542
#accession      JCI1478
#molecule_type mRNA
#residues      1-109 #label OP2
REFERENCE      S32222
#authors      Minny, A.; Chalton, P.; Guillemot, J.C.; Kaghad, M.; Liauzun, P.;
      Magazin, M.; Miloux, B.; Minny, C.; Ramond, P.; Vite, N.;
      Lucker, J.; Shire, D.; Ferrara, P.; Caput, D.
#submission      Submitted to the EMBL Data Library, March 1993
#description      Molecular cloning of MCP-3: a human monocyte-derived monocyte
      chemotactant protein.
#accession      S32222
#molecule_type mRNA
#residues      1-109 #label MIN
#cross-references EMBL:X71087; NID:9288396; PID:9288397
COMMENT      This protein induces proteinase secretion and chemotaxis by
      macrophages and monocytes.
GENETICS
#gene      GDB:SCYA7, SCYA6; MCP-3
#cross-references GDB:138473; OMIM:158106
#map_position 17q11-17q12
#introns      36/1; 75/2
CLASSIFICATION      #superfamily macrophage inflammatory protein
KEYWORDS      cytokine; glycoprotein; inflammation
FEATURE
      1-33      #domain signal sequence #status predicted #label SIG\
      34-109      #product monocyte chemotactic protein 3 #status
      predicted #label MAT\
      #binding-site carbohydrate (asn) (covalent) #status
      predicted
SUMMARY      #length 109 #molecular-weight 12356 #checksum 1535
Query Match      100.0%; Score 44; DB 2; Length 109;
Best Local Similarity 100.0%; Pred. No. 6.98e+00;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db      83 EICADP 88
      1 EICADP 6

RESULT 3
ENTRY      S07723      #type complete
TITLE      immediate-early serum-responsive protein JE - rat
ALTERNATE_NAMES      monocyte chemotactant protein-1
ORGANISM      #formal_name Rattus norvegicus #common_name Norway rat
DATE      29-Jan-1993 #sequence_revision 29-Jan-1993 #text_change
ACCESSIONS      S07723; JN0128
REFERENCE      S07723
#authors      Timmers, H.T.M.; Pronk, G.J.; Bos, J.L.; van der Eb, A.J.
#journal      Nucleic Acids Res. (1990) 18:23-34
#title      Analysis of the rat JE gene promoter identifies an AP-1
      binding site essential for basal expression but not for TPA
      induction.
#cross-references M01D:90174947
#accession      S07723
#molecule_type DNA
#residues      1-148 #label TIM
REFERENCE      #cross-references EMBL:X17053; NID:955530; PID:955531
      JN0128
#authors      Yoshimura, T.; Takeya, M.; Takahashi, K.
#journal      Biochem. Biophys. Res. Commun. (1991) 174:504-509
#title      Molecular cloning of rat monocyte chemotactant protein-1
      (MCP-1) and its expression in rat spleen cells and tumor
      cell lines.
#cross-references M01D:91128376
#accession      JN0128
#molecule_type mRNA
#residues      1-148 #label YOS
#cross-references GB:M57441; NID:9205333; PID:9205334
#experimental_source spleen cells
#note      The authors translated the codon GAA for residue 62 as
      Lys and GCT for residue 63 as Leu

GENETICS
#introns      26/1; 65/2
CLASSIFICATION      #superfamily macrophage inflammatory protein
FEATURE
      1-23      #domain signal sequence #status predicted #label SIG\
      24-148      #product immediate-early serum-responsive protein JE
      #status predicted #label MAT
SUMMARY      #length 148 #molecular-weight 16460 #checksum 4876
Query Match      100.0%; Score 44; DB 2; Length 148;
Best Local Similarity 100.0%; Pred. No. 6.98e+00;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db      73 EICADP 78
      1 EICADP 6

RESULT 4
ENTRY      C1H0H2      #type complete
TITLE      calpain (EC 3.4.22.17) large chain 2 - human
ALTERNATE_NAMES      calpain chain b-2; calpain II catalytic chain; high-calcium
      requiring, calcium activated neutral proteinase (CAMP)
      large subunit; m-calpain (millimolar) heavy chain
ORGANISM      #formal_name Homo sapiens #common_name man
DATE      21-Nov-1993 #sequence_revision 09-Aug-1997 #text_change
ACCESSIONS      S10590; A31218; A33529
REFERENCE      S10589
#authors      Sorimachi, H.; Ohmi, S.; Emori, Y.; Kawasaki, H.; Saigo, T.C.;
      Ohno, S.; Minami, Y.; Suzuki, K.
#journal      Biol. Chem. Hoppe-Seyler (1990) 371[Suppl.]171-176
#title      A novel member of the calcium-dependent cysteine protease
      family.
#cross-references M01D:90380278
```

#accession S10590
#molecule-type mRNA
#residues 1-700 ##label SOR
REFERENCE A31218
#authors Imaeoh, S.; Aoki, K.; Ohno, S.; Emori, Y.; Kawasaki, H.;
Sugihara, H.; Suzuki, K.
#journal Biochemistry (1988) 27:8122-8128
#title Molecular cloning of the cDNA for the large subunit of the
high-Ca(2+)-requiring form of human Ca(2+)-activated
neutral protease.
#cross-references MIMD:89166474
#accession A31218
#molecule-type protein
#residues 1-210,'I',212-394,'D',396-445,'I',447-700 ##label IMA
#cross-references GB:M2254; NID:9511636; PID:9511637
#note parts of this sequence were determined by protein
sequencing; the amino end of the mature protein is
blocked
REFERENCE A33529
#authors Hata, A.; Ohno, S.; Akita, Y.; Suzuki, K.
#journal J. Biol. Chem. (1989) 264:6404-6411
#title Tandemly reiterated negative enhancer-like elements regulate
transcription of a human gene for the large subunit of
calcium-dependent protease.
#cross-references MIMD:89197947
#accession A33529
#molecule-type DNA
#residues 1-67,'G',69-72,'IE',75-78,'R' ##label HAT
#cross-references DDBJ:J04700; NID:9179910; PID:9463086
GENETICS
#gene GDB:CAPN2; mCAMP; CAPNm1
#cross-references GDB:119750; OMIM:114230
COMPLEX #map_position 1pter-1qter
FUNCTION heterodimer of L (large) and S (small) chains
#description catalyzes the hydrolysis of peptides
cleaves preferentially after tyrosine, methionine, or
arginine residues and before leucine or valine residues
CLASSIFICATION #superfamily calpain large chain; calmodulin repeat homology;
#calpain catalytic domain homology
KEYWORDS acetylated amino end; calcium binding; cysteine proteinase;
EF hand; heterodimer; hydrolase
FEATURE
2-700 #product calpain large chain 2 #status predicted #label
MAR\
75-327 #domain calpain catalytic domain homology #label CALP\
529-560 #domain calmodulin repeat homology #label EF1\
572-604 #domain calmodulin repeat homology #label EF2\
605-634 #domain calmodulin repeat homology #label EF3\
637-669 #domain calmodulin repeat homology #label EF4\
2 #modified-site acetylated amino end (ala) (in mature
form) #status predicted\
105,262,286 #active-site Cys, His, Asn #status predicted
SUMMARY #length 700 #molecular-weight 80020 #checksum 8484
Query Match 100.0%; Score 44; DB 1; Length 700;
Best Local Similarity 100.0%; Pred. No. 6.98e+00;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Db 80 EICADP 85
OY 1 EICADP 6
RESULT 5
ENTRY S38361 #type complete
TITLE calpain (EC 3.4.22.17) II large chain - rat
ALTERNATE_NAMES calpain II 80k chain
ORGANISM #formal_name Rattus norvegicus #common_name Norway rat
DATE 31-Dec-1993 #sequence_revision 02-Aug-1994 #text_change
08-Sep-1997
ACCESSIONS S38361; S08650; S39751
REFERENCE S38361

#authors DeLuca, C.I.; Davies, P.L.; Samis, J.A.; Elce, J.S.
#journal Blochm. Biophys. Acta (1993) 1216:81-93
#title Molecular cloning and bacterial expression of cDNA for rat
calpain II 80 kda subunit.
#accession S38361
#molecule-type mRNA
#residues 1-700 ##label DEL
REFERENCE S08650
#cross-references EMBL:L09120; NID:9402665; PID:9402666
#accession S08650
#authors Samis, J.A.; Back, D.W.; Graham, E.J.; Elce, J.S.
#submission submitted to the EMBL Data Library, February 1990
#accession S08650
#molecule-type DNA
#residues 380-439 ##label SAM
#cross-references EMBL:X51772
CLASSIFICATION #superfamily calpain large chain; calmodulin repeat homology;
calpain catalytic domain homology
KEYWORDS calcium binding; cysteine proteinase; duplication; EF hand;
heterodimer; hydrolase
FEATURE
75-327 #domain calpain catalytic domain homology #label CALP\
529-560 #domain calmodulin repeat homology #label EF1\
572-604 #domain calmodulin repeat homology #label EF2\
605-634 #domain calmodulin repeat homology #label EF3\
637-669 #domain calmodulin repeat homology #label EF4\
105,262,286 #active-site Cys, His, Asn #status predicted
SUMMARY #length 700 #molecular-weight 79919 #checksum 441
Query Match 100.0%; Score 44; DB 2; Length 700;
Best Local Similarity 100.0%; Pred. No. 6.98e+00;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Db 80 EICADP 85
OY 1 EICADP 6
RESULT 6
ENTRY JC4912 #type complete
TITLE eotaxin - human
ORGANISM #formal_name Homo sapiens #common_name man
DATE 01-Nov-1996 #sequence_revision 01-Nov-1996 #text_change
08-Sep-1997
ACCESSIONS JC4912
REFERENCE JC4912
#authors Bartels, J.; Schlueter, C.; Richter, E.; Noso, N.; Kulke, R.;
Christophers, E.; Schroeder, J.M.
#journal Biochem. Biophys. Res. Commun. (1996) 225:1045-1051
#title Human dermal fibroblasts express eotaxin: Molecular cloning,
mRNA expression, and identification of eotaxin sequence
variants.
#accession JC4912
#status preliminary
#molecule-type mRNA
#residues 1-97 ##label BAR
#cross-references EMBL:Z75668; NID:91531982; PID:e251275; PID:91531983
COMMENT #experimental_source dermal fibroblast
This protein has eosinophil specific chemotactic activity.
CLASSIFICATION #superfamily macrophage inflammatory protein
fibroblast
KEYWORDS
FEATURE
1-18 #domain signal sequence #status predicted #label SIG\
19-97 #product eotaxin #status predicted #label MAR
SUMMARY #length 97 #molecular-weight 10790 #checksum 448
Query Match 97.7%; Score 43; DB 2; Length 97;
Best Local Similarity 83.3%; Pred. No. 1.12e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
Db 71 EICADP 76
OY 1 EICADP 6

RESULT 7
ENTRY JC2136 #type complete
TITLE monocyte chemoattractant protein-1 precursor - pig
ORGANISM #formal_name Sus scrofa domestica #common_name domestic pig
DATE 30-Sep-1993 #sequence_revision 20-Aug-1994 #text_change 08-Sep-1997
ACCESSIONS JC2136; S57498
REFERENCE JC2136
#authors Hosang, K.; Knoke, I.; Klaudiny, J.; Wempe, F.; Wutke, W.; Scheit, K.H.
#journal Biochem. Biophys. Res. Commun. (1994) 199:962-968
#title Porcine luteal cells express monocyte chemoattractant protein-1 (MCP-1): Analysis by polymerase chain reaction and cDNA cloning.
#accession JC2136
#molecule_type mRNA
#residues 1-99 ##label HOS
REFERENCE S57497
#authors Zach, O.
#submission Submitted to the EMBL Data Library, July 1994
#accession S57498
#status preliminary
#molecule_type mRNA
#residues 1-99 ##label ZAC
#cross_references EMBL:X79416; NID:9872312; PID:9872313
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS glycoprotein
FEATURE 1-23
24-99 #domain signal sequence #status predicted #label SIG\
#product monocyte chemoattractant protein-1 #status predicted #label MAT\
#binding_site carbohydrate (Asn) (covalent) #status predicted
94 #length 99 #molecular_weight 10976 #checksum 9768
SUMMARY
Query Match 97.7%; Score 43; DB 2; Length 99;
Best Local Similarity 83.3%; Pred. No. 1.12e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
Db 73 EICADP 78
1-23
QY 1 EICADP 6
RESULT 8
ENTRY F69231 #type complete
TITLE hypothetical protein MTH983 - Methanobacterium
ORGANISM #formal_name Methanobacterium thermoautotrophicum
DATE 05-Dec-1997 #sequence_revision 05-Dec-1997 #text_change 05-Jun-1998
ACCESSIONS F69231
REFERENCE A69000
#authors Smith, D.R.; Doucette-Stamm, L.A.; Deloughery, C.; Lee, H.; Dubois, J.; Aldredge, T.; Bashirzadeh, R.; Blakely, D.; Cook, R.; Gilbert, K.; Harrison, D.; Hoang, L.; Keagle, P.; Lumu, W.; Pothier, B.; Qiu, D.; Spadofora, R.; Vicatore, R.; Wang, Y.; Wierzbowski, J.; Gibson, R.; Jivani, N.; Caruso, A.; Bush, D.; Safer, H.; Patwell, D.; Prabhakar, S.; McDougall, S.; Shimer, G.; Goyal, A.; Pietrovski, S.; Church, G.M.; Daniels, C.D.; Mao, J.; Rice, P.; Noelling, J.; Reeve, J.N.
#journal J. Bacteriol. (1997) 179:7135-7155
#title Complete genome sequence of Methanobacterium thermoautotrophicum Delta H: functional analysis and comparative genomics.
#cross_references MUID:98037514
#accession F69231
#status preliminary; nucleic acid sequence not shown;
#molecule_type DNA
#residues 1-64 ##label MTH

##cross_references GB:AE000872; GB:AE000666; NID:92622082; PID:92622084
#experimental_source strain Delta H
GENETICS
#gene MTH983
SUMMARY #length 64 #molecular_weight 7098 #checksum 7074
Query Match 95.5%; Score 42; DB 2; Length 64;
Best Local Similarity 83.3%; Pred. No. 1.77e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
Db 16 EICADP 21
1-23
QY 1 EICADP 6
RESULT 9
ENTRY JC5295 #type complete
TITLE monocyte chemoattractant protein-2 - human
ORGANISM #formal_name Homo sapiens #common_name man
DATE 02-May-1997 #sequence_revision 18-Jul-1997 #text_change 31-Oct-1997
ACCESSIONS JC5295
REFERENCE JC5295
#authors Van Collie, E.; Froyen, G.; Nomiyama, H.; Miura, R.; Fiten, P.; Van Aelst, I.; Van Damme, J.; Opdenakker, G.
#journal Biochem. Biophys. Res. Commun. (1997) 231:726-730
#title Human monocyte chemoattractant protein-2: cDNA cloning and regulated expression of mRNA in mesenchymal cells.
#accession JC5295
#molecule_type mRNA
#residues 1-99 ##label VAN
#cross_references GB:X10802; NID:91924937; PID:e294088; PID:91924938
#experimental_source bone marrow
COMMENT This protein belongs to the beta-chemokine family which is one of the major HIV-suppressive factors. It plays roles in autoimmune processes such as multiple sclerosis and rheumatoid arthritis and in tumor biology, and contribute to the trafficking and recruitment of the responsive cells.
GENETICS
#gene MCP-2
CLASSIFICATION #superfamily macrophage inflammatory protein
FEATURE 1-23
24-99 #domain signal sequence #status predicted #label SIG\
#product monocyte chemoattractant protein-2 #status predicted #label MAT
SUMMARY #length 99 #molecular_weight 11246 #checksum 6596
Query Match 95.5%; Score 42; DB 2; Length 99;
Best Local Similarity 83.3%; Pred. No. 1.77e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
Db 73 EVCADP 78
1-23
QY 1 EICADP 6
RESULT 10
ENTRY JC2417 #type complete
TITLE monocyte chemoattractant protein-2 - pig
ORGANISM #formal_name Sus scrofa domestica #common_name domestic pig
DATE 24-Feb-1995 #sequence_revision 24-Feb-1995 #text_change 03-May-1996
ACCESSIONS JC2417
REFERENCE JC2417
#authors Hosang, K.; Knoke, I.; Klaudiny, J.; Wempe, F.; Wutke, W.; Scheit, K.H.
#journal Biochem. Biophys. Res. Commun. (1994) 205:148-153
#title Porcine luteal cells express monocyte chemoattractant protein-2 (MCP-2): Analysis by cDNA cloning and northern analysis.
#accession JC2417
#molecule_type mRNA
#residues 1-99 ##label HOS

```
##experimental_source corpus luteum
CLASSIFICATION #superfamily macrophage inflammatory protein
FEATURE
1-23 #domain signal sequence #status predicted #label SIG\
24-99 #product monocyte chemoattractant protein-2 #status
SUMMARY #length 99 #molecular-weight 10903 #checksum 7556
Query Match 95.5%; Score 42; DB 2; Length 99;
Best Local Similarity 83.3%; Pred. No. 1.77e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 73 EVCADP 78
|:|||||
QY 1 EICADP 6

RESULT 11
ENTRY 148147 #type complete
TITLE monocyte chemoattractant protein-1 - guinea pig
ORGANISM #formal_name Cavia porcellus #common_name guinea pig
DATE 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change
09-May-1997
ACCESSIONS 148147
REFERENCE 148147
#authors Yoshimura, T.
#journal J. Immunol. (1993) 150:5025-5032
#title cDNA cloning of guinea pig monocyte chemoattractant protein-1
and expression of the recombinant protein.
#cross-references MUID:93267104
#accession I48147
##status preliminary; translated from GB/EMBL/DBJ
##molecule_type mRNA
##residues 1-120 #label RES
##cross-references GB:I04985; NID:g349820; PID:g349821
GENETICS
#gene MCP-1
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 120 #molecular-weight 13741 #checksum 9252
Query Match 95.5%; Score 42; DB 2; Length 120;
Best Local Similarity 83.3%; Pred. No. 1.77e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 71 EVCADP 76
|:|||||
QY 1 EICADP 6

RESULT 12
ENTRY A30209 #type complete
TITLE PDGF-inducible JE glycoprotein precursor - mouse
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE 01-Dec-1989 #sequence_revision 01-Dec-1989 #text_change
01-May-1998
ACCESSIONS A30209; A44771; A30861
REFERENCE A30209
#authors Rollins, B.J.; Morrison, E.D.; Stiles, C.D.
#journal Proc. Natl. Acad. Sci. U.S.A. (1988) 85:3738-3742
#title Cloning and expression of JE, a gene inducible by
platelet-derived growth factor and whose product has
cytokine-like properties.
#cross-references MUID:88234501
#accession A30209
##molecule_type DNA
##residues 1-148 #label ROL
##cross-references GB:M19681; NID:g193486; PID:g387168; GB:M19682
REFERENCE A44771
#authors Kawahara, R.S.; Deuel, T.F.
#journal J. Biol. Chem. (1989) 264:679-682
#title Platelet-derived growth factor-inducible gene JE is a member
of a family of small inducible genes related to platelet
factor 4.
```

```
#accession A44771
##molecule_type DNA; mRNA
##residues 1-148 #label RA2
##cross-references GB:J04467; NID:g193488; PID:g387169
GENETICS
#gene JE
#introns 26/1; 65/2
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS cytokine; glycoprotein
FEATURE 126
#binding_site carbohydrate (Asn) (covalent) #status
predicted
SUMMARY #length 148 #molecular-weight 16326 #checksum 5278
Query Match 95.5%; Score 42; DB 2; Length 148;
Best Local Similarity 83.3%; Pred. No. 1.77e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 73 EVCADP 78
|:|||||
QY 1 EICADP 6

RESULT 13
ENTRY I52322 #type complete
TITLE macrophage inflammatory protein-1alpha - rat
ORGANISM #formal_name Rattus norvegicus #common_name Norway rat
DATE 29-May-1998 #sequence_revision 29-May-1998 #text_change
02-Jul-1998
ACCESSIONS I52322
REFERENCE I52322
#authors Shi, M.M.; Godleski, J.J.; Paulauskis, J.D.
#journal Biochem. Biophys. Res. Commun. (1995) 211:289-295
#title Molecular cloning and posttranscriptional regulation of
macrophage inflammatory protein-1 alpha in alveolar
macrophages.
#cross-references MUID:95298037
#accession I52322
##status preliminary; translated from GB/EMBL/DBJ
##molecule_type mRNA
##residues 1-92 #label RES
##cross-references EMBL:U22414; NID:g790632; PID:g790633
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 92 #molecular-weight 10335 #checksum 3184
Query Match 93.2%; Score 41; DB 2; Length 92;
Best Local Similarity 83.3%; Pred. No. 2.80e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 71 QICADP 76
|:|||||
QY 1 EICADP 6

RESULT 14
ENTRY G69531 #type complete
TITLE alanyl-tRNA synthetase (alas) homolog - Archaeoglobus
ORGANISM #formal_name Archaeoglobus fulgidus
DATE 05-Dec-1997 #sequence_revision 05-Dec-1997 #text_change
21-Aug-1998
ACCESSIONS G69531
REFERENCE A69250
#authors Klenk, H.P.; Clayton, R.A.; Tomb, J.F.; White, O.; Nelson,
K.E.; Ketchum, K.A.; Dodson, R.J.; Gwinn, M.; Hickey, E.K.;
Peterson, J.D.; Richardson, D.L.; Kierlavage, A.R.; Graham,
D.E.; Kyrpides, N.C.; Fleischmann, R.D.; Quackenbush, J.;
Lee, N.H.; Sutton, G.G.; Gill, S.; Kirkness, E.F.;
Dougherty, B.A.; McKenny, K.; Adams, M.D.; Loftus, B.;
Peterson, S.; Reich, C.I.; McNeil, L.K.; Badger, J.H.;
Glodek, A.; Zhou, L.; Overbeek, R.; Gooyayne, J.D.; Weidman,
J.F.; McDonald, L.; Utterback, T.; Cotton, M.D.; Spriggs,
T.; Artlich, P.; Kaine, B.P.; Sykes, S.M.; Sadow, P.W.;
```

D'Andrea, K.P.; Bowman, C.; Fujii, C.; Garland, S.A.;
Mason, T.M.; Olsen, G.J.; Fraser, C.M.; Smith, H.O.; Woese,
C.R.; Venter, J.C.
Nature (1997) 390:364-370
The complete genome sequence of the hyperthermophilic,
sulfate-reducing archaeon *Archaeoglobus fulgidus*.
#cross-references MUID:98049343
#accession G69531
#status preliminary; nucleic acid sequence not shown;
translation not shown
##molecule_type DNA
##residues 1-906 ##label KLE
##cross-references GB:AE000949; GB:AE000782; NID:g2689272; PID:g2648270;
TIGR:AF2255

CLASSIFICATION #superfamily alanine--trna ligase
SUMMARY #length 906 #molecular-weight 102536 #checksum 4232

Query Match 93.2%; Score 41; DB 2; Length 906;
Best Local Similarity 83.3%; Pred. No. 2.80e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 38 EICGDP 43
|||:|
Qy 1 EICADP 6

RESULT 15
ENTRY JC5579 #type complete
TITLE chymotrypsin-like serine proteinase (EC 3.4.-.-) -
ORGANISM Streptomyces albobagriscolus
#formal_name Streptomyces albobagriscolus
23-Sep-1997 #sequence_revision 23-Sep-1997 #text_change
26-Feb-1998

ACCESSIONS JC5579
REFERENCE JC5579
#authors Taguchi, S.; Ogawa, T.; Endo, T.; Momose, H.
#journal Biosci. Biotechnol. Biochem. (1997) 61:909-913
#title A gene homologous to the Streptomyces chymotrypsin-like
protease (SAM-P20) gene is tandemly located.
#accession JC5579
##molecule_type DNA
##residues 1-283 ##label TAG
##cross-references DDBJ:D86743
#note authors translated the codon AGC for residue 152 as Arg

GENETICS sam-p20D
#gene gTG
#start_codon GTG
CLASSIFICATION #superfamily Streptomyces proteinase A; trypsin homology
KEYWORDS hydrolase
FEATURE 1-96
97-283
#domain signal sequence #status predicted #label SIG\
#product chymotrypsin-like serine proteinase #status
predicted #label MAT\
#active_site His, Asp, Ser #status predicted
129,157,239 #length 283 #molecular_weight 28418 #checksum 1978
SUMMARY

Query Match 90.9%; Score 40; DB 2; Length 283;
Best Local Similarity 50.0%; Pred. No. 4.39e+01;
Matches 3; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Db 231 DVCAEP 236
|||:|
Qy 1 EICADP 6

RESULT 16
ENTRY S49188 #type complete
TITLE electron transfer flavoprotein alpha chain homolog -
Azotobacter vinelandii
fixb protein
ALTERNATE_NAMES fixb protein
ORGANISM #formal_name Azotobacter vinelandii
16-Feb-1995 #sequence_revision 12-May-1995 #text_change
08-Sep-1997

ACCESSIONS S49188
REFERENCE S49188
#authors Wientjens, R.; van Dongen, W.; Haaker, H.
#submission submitted to the EMBL Data Library, April 1992
#description Molecular cloning of fixa, fixb, fixc and fixx genes of
Azotobacter vinelandii.
#accession S49188
#status preliminary
##molecule_type DNA
##residues 1-360 ##label WIE
##cross-references EMBL:X65515; NID:g510483; PID:g510486

CLASSIFICATION #superfamily electron transfer flavoprotein alpha chain
KEYWORDS electron transfer; flavoprotein
SUMMARY #length 360 #molecular_weight 39030 #checksum 5511

Query Match 90.9%; Score 40; DB 2; Length 360;
Best Local Similarity 66.7%; Pred. No. 4.39e+01;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 72 EICGEP 77
|||:|
Qy 1 EICADP 6

RESULT 17
ENTRY A70709 #type complete
TITLE probable putB protein - Mycobacterium tuberculosis (strain
H37RV)
ORGANISM #formal_name Mycobacterium tuberculosis
17-Jul-1998 #sequence_revision 17-Jul-1998 #text_change
17-Jul-1998

ACCESSIONS A70709
REFERENCE A70500
#authors Cole, S.T.; Brosch, R.; Parkhill, J.; Garnier, T.; Churcher,
C.; Harris, D.; Gordon, S.V.; Eigmeier, K.; Gas, S.; Barry
III, C.E.; Tekala, F.; Badcock, K.; Basham, D.; Brown, D.;
Chillingworth, T.; Connor, R.; Davies, R.; Devlin, K.;
Feltwell, T.; Gentles, S.; Hamlin, N.; Holroyd, S.;
Hornsby, T.; Jagels, K.; Krogh, A.; McLean, J.; Moule, S.;
Murphy, L.; Oliver, S.; Osborne, J.; Quail, M.A.;
Rajandream, M.A.; Rogers, J.; Rutter, S.; Seeger, K.;
Skellton, S.; Squares, S.; Sgares, R.; Sulston, J.E.;
Taylor, K.; Whitehead, S.; Barrett, B.C.
#journal Nature (1998) 393:537-544
#title Deciphering the biology of Mycobacterium tuberculosis from
the complete genome sequence.
#cross-references MUID:98295987
#accession A70709
#status preliminary; nucleic acid sequence not shown;
translation not shown
##molecule_type DNA
##residues 1-552 ##label COL
##cross-references GB:Z80226; GB:AL123456; NID:g3261638; PID:e266572;
#experimental_source strain H37RV

GENETICS putB
#gene
SUMMARY #length 552 #molecular_weight 60896 #checksum 9026

Query Match 90.9%; Score 40; DB 2; Length 552;
Best Local Similarity 83.3%; Pred. No. 4.39e+01;
Matches 5; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 312 EICGEP 317
|||:|
Qy 1 EICADP 6

RESULT 18
ENTRY C60407 #type fragment
TITLE monocytic adherence-induced protein 5 beta - human (fragment)
TITLE
ORGANISM #formal_name Homo sapiens #common_name man
06-Nov-1992 #sequence_revision 06-Nov-1992 #text_change

03-May-1996

ACCESSIONS C60407
REFERENCE A60407
#authors Sporn, S.A.; Eierman, D.F.; Johnson, C.E.; Morris, J.;
#journal Martin, G.; Ladner, M.; Haskill, S.
#title J. Immunol. (1990) 144:4434-4441
Monocyte adherence results in selective induction of novel
genes sharing homology with mediators of inflammation and
tissue repair.

#cross-references MUID:90257367
#accession C60407
#status preliminary; not compared with conceptual translation
#molecule_type mRNA
#residues 1-50 ##label SPO
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 50 #checksum 9927

Query Match 88.6%; Score 39; DB 2; Length 50;
Best Local Similarity 66.7%; Pred. No. 6.83e+01;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 30 QVCADP 35
:::||||
Qy 1 EICADP 6

RESULT 19
ENTRY A30574 #type complete
TITLE macrophage inflammatory protein 1-alpha precursor - human
ALTERNATE_NAMES LD78-alpha protein precursor; lymphocyte tumor
promoter-induced protein; macrophage inflammatory protein
homolog GOS19-1; MIP-1alpha; pAI464; small inducible
cytokine A3; T-cell activation protein 1
#formal_name Homo sapiens #common_name man
03-Aug-1992 #sequence_revision 03-Aug-1992 #text_change
29-May-1998

ORGANISM A35673; A30574; A30412; A24198; A30908
DATE A35673; A30574; A30412; A24198; A30908

ACCESSIONS A35673
REFERENCE A35673
#authors Nakao, M.; Nomiyama, H.; Shimada, K.
#journal Mol. Cell. Biol. (1990) 10:3646-3658
#title Structures of human genes coding for cytokine LD78 and their
expression.

#cross-references MUID:90287155
#accession A35673
##molecule_type DNA
##residues 1-92 ##label NAK
#cross-references GB:D90144; NID:9219905; PID:01014875; PID:9219906

REFERENCE A30574
#authors Zipfel, P.F.; Balke, J.; Irving, S.G.; Kelly, K.; Siebenlist, U.
#journal J. Immunol. (1989) 142:1582-1590
#title Mitogenic activation of human T cells induces two closely
related genes which share structural similarities with a
new family of secreted factors.

#cross-references MUID:89140347
#accession A30574
##molecule_type mRNA
##residues 1-92 ##label ZIP
#cross-references GB:M25315; NID:9602452; PID:9602453

REFERENCE A30412
#authors Blum, S.; Forsdyke, R.E.; Forsdyke, D.R.
#journal DNA Cell Biol. (1990) 9:589-602
#title Three human homologs of a murine gene encoding an inhibitor
of stem cell proliferation.

#cross-references MUID:91103879
#accession A30412
##molecule_type mRNA
##residues 1-92 ##label BLU

REFERENCE A24198
#authors Obaru, K.; Fukuda, M.; Maeda, S.; Shimada, K.
#journal J. Biochem. (1986) 99:885-894
#title A cDNA clone used to study mRNA inducible in human tonsillar
lymphocytes by a tumor promoter.

#cross-references MUID:86223879
#accession A24198
#status preliminary
#molecule_type mRNA
#residues 1-92 ##label OBA

GENETICS GDB:SCY3
#gene #cross-references GDB:120368; OMTM:182283
#map_position 17q11-17q21
CLASSIFICATION #superfamily macrophage inflammatory protein
FEATURE
1-20 #domain signal sequence #status predicted #label SIG\
21-92 #product macrophage inflammatory protein 1-alpha #status
33-57,34-73 #disulfide_bonds #status predicted
SUMMARY #length 92 #molecular_weight 10085 #checksum 4316

Query Match 88.6%; Score 39; DB 2; Length 92;
Best Local Similarity 66.7%; Pred. No. 6.83e+01;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 71 QVCADP 76
:::||||
Qy 1 EICADP 6

RESULT 20
ENTRY A31767 #type complete
TITLE macrophage inflammatory protein 1-beta precursor - human
ALTERNATE_NAMES cytokine HC21; G-26 protein; H400 homolog; lymphocyte
activation gene 1 protein (LAG-1); MIP-1beta; pAI744; SCVY2
protein (misidentification); SIS gamma homolog; T cell
activation protein 2 (Act-2); T-cell activation protein
gamma

ORGANISM #formal_name Homo sapiens #common_name man
DATE 07-Jun-1990 #sequence_revision 29-May-1998 #text_change
29-May-1998

ACCESSIONS JH0319; A40978; A31767; A37411; B30574; B45817; D30552
REFERENCE JH0319
#authors Balxeras, E.; Roman-Roman, S.; Iitsukawa, S.; Genevée, C.;
Mechiche, S.; Vlegas-Peguinot, E.; Herceud, T.; Triebel, F.

#journal Mol. Immunol. (1990) 27:1091-1102
#title Cloning and expression of a lymphocyte activation gene
(LAG-1).

#cross-references MUID:91061800
#accession JH0319
##molecule_type DNA
##status translation not shown
##residues 1-92 ##label BAI
#cross-references GB:X53682; NID:934217; PID:934218
#cross-references GB:M69201; NID:9178021

REFERENCE A40978
#authors Napolitano, M.; Modi, W.S.; Cevallo, S.J.; Gnarr, J.R.;
Seunert, H.N.; Leonard, W.J.
#journal J. Biol. Chem. (1991) 266:17531-17536
#title The gene encoding the Act-2 cytokine. Genomic structure,
RTV-I/Tax responsiveness of 5' upstream sequences, and
chromosomal localization.

#cross-references MUID:91373378
#accession A40978
##molecule_type DNA
##residues 1-14,'S',16-69,'G',71-92 ##label NBP
#cross-references GB:M69201; NID:9178021
15-Ala was also found

REFERENCE A31767
#authors Lipos, M.A.; Napolitano, M.; Jeang, K.T.; Chang, N.T.;
Leonard, W.J.
#journal Proc. Natl. Acad. Sci. U.S.A. (1988) 85:9704-9708
#title Identification, cloning, and characterization of an immune
activation gene.

#cross-references MUID:89071764
#accession A31767

```

#molecule-type mRNA
##residues 1-92 ##label LIP
##cross-references GB:J04130; NID:g178017; PID:g178018
REFERENCE
#authors Chang, H.C.; Reinherz, E.L.
#journal Eur. J. Immunol. (1989) 19:1045-1051
#title Isolation and characterization of a cDNA encoding a putative
cytokine which is induced by stimulation via the CD2
structure on human T lymphocytes.
#cross-references MUID:89325421
#accession A37411
##molecule-type mRNA
##residues 1-92 ##label CHA
##cross-references GB:X1616; NID:g32035; PID:g32036
REFERENCE
#authors Zipfel, P.F.; Balke, J.; Irving, S.G.; Kelly, K.; Siebenlist,
U.
#journal J. Immunol. (1989) 142:1582-1590
#title Mitogenic activation of human T cells induces two closely
related genes which share structural similarities with a
new family of secreted factors.
#cross-references MUID:89140347
#accession B30574
##molecule-type mRNA
##residues 1-19,'L',21-92 ##label ZIP
##cross-references GB:M25316; NID:g602454; PID:g602455
REFERENCE
#authors Miller, M.D.; Hata, S.; Malefyt, R.D.W.; Krangel, M.S.
#journal J. Immunol. (1989) 143:2907-2916
#title A novel polypeptide secreted by activated human T
lymphocytes.
#cross-references MUID:90038522
#accession B45817
##molecule-type mRNA
##residues 7-55,'I',57-79,'T',81-92 ##label MIL
##cross-references GB:M57503; NID:g339726; PID:g339727
REFERENCE
#authors Brown, K.D.; Zurawski, S.M.; Mosmann, T.R.; Zurawski, G.
#journal J. Immunol. (1989) 142:679-687
#title A family of small inducible proteins secreted by leukocytes
are members of a new superfamily that includes leukocyte
and fibroblast-derived inflammatory agents, growth factors,
and indicators of various activation processes.
#cross-references MUID:89093958
#accession D30552
##molecule-type mRNA
##residues 1-39,'REASS',46-92 ##label BRO
##cross-references GB:M23502; NID:g533212; PID:g533213
REFERENCE
#authors Clore, G.M.; Lodi, P.J.; Garrett, D.S.; Gronenborn, A.M.
#submission Submitted to the Brookhaven Protein Data Bank, January 1994
#cross-references PDB:1HUM
#contents annotation; conformation and disulfide bond assignments by
(1)H-NMR, residues 24-92
COMMENT This protein is secreted by activated lymphocytes and monocytes. It
is bound by chemokine (C-C) receptor 5 (see PIR:A43113) and
receptor 1 (see PIR:A45177).
GENETICS
#gene GDB:LAG1
##cross-references GDB:127451; OMIM:153335
#map_position 17q21-17q21
#introns 26/1; 64/2
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS chemotaxis; cytokine; inflammation
FEATURE
1-23 #domain signal sequence #status predicted #label SIG\
24-92 #product macrophage inflammatory protein 1-beta #status
experimental #label MAT\
#disulfide_bonds #status experimental
SUMMARY 34-58, 35-74 #length 92 #molecular-weight 10212 #checksum 7597
Query Match 88.6%; Score 39; DB 1; Length 92;
Best Local Similarity 66.7%; Pred. No. 6, 83e+01;

```

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Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
DB 72 QVCADP 77
:::||||
QY 1 EICADP 6
RESULT 21
ENTRY B35673 #type complete
TITLE LD78-beta protein precursor - human
ALTERNATE_NAMES macrophage inflammatory protein homolog GOS19-2; small
inducible cytokine A4
ORGANISM #formal_name Homo sapiens #common_name man
DATE 28-Sep-1990 #sequence_revisions #common_name man
24-Sep-1998
ACCESSIONS B35673; B30412; S10157; B30908
REFERENCES A35673
#authors Nakao, M.; Nomiyama, H.; Shimada, K.
#journal Mol. Cell. Biol. (1990) 10:3646-3658
#title Structures of human genes coding for cytokine LD78 and their
expression.
#cross-references MUID:90287155
#accession B35673
##status Preliminary
##molecule-type DNA
##residues 1-93 ##label NAK
##cross-references GB:D90145; NID:g219907; PID:d1014876; PID:g219908
REFERENCE
#authors Blum, S.; Forsdyke, R.E.; Forsdyke, D.R.
#journal DNA Cell Biol. (1990) 9:589-602
#title Three human homologs of a murine gene encoding an inhibitor
of stem cell proliferation.
#cross-references MUID:91103879
#accession B30412
##status Preliminary; not compared with conceptual translation
##molecule-type DNA
##residues 1-93 ##label BLU
##cross-references GB:M24110; GB:M32338; NID:g182848; PID:g182849
REFERENCE
#authors Irving, S.G.; Zipfel, P.F.; Balke, J.; McBride, O.W.; Morton,
C.C.; Burd, P.R.; Siebenlist, U.; Kelly, K.
#journal Nucleic Acids Res. (1990) 18:3261-3270
#title Two inflammatory mediator cytokine genes are closely linked
and variably amplified on chromosome 17q.
#cross-references MUID:90287702
#accession S10157
##status Preliminary
##molecule-type mRNA
##residues 1-93 ##label IRV
##cross-references EMBL:X52149; NID:g34750; PID:g296666
COMMENT This protein is a member of a "small inducible" or "activation
specific" gene family, is likely to be an early-acting
interleukin, and is the product of a putative G0/G1 switch gene.
GENETICS
#gene GDB:SCYA4
##cross-references GDB:120369; OMIM:182284
#map_position 17q11-17q21
#introns 26/1; 64/2
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS cytokine
FEATURE
1-22 #domain signal sequence #status predicted #label SIG\
23-93 #product LD78-beta protein #status predicted #label MAT\
#length 93 #molecular-weight 10161 #checksum 7784
SUMMARY
Query Match 88.6%; Score 39; DB 2; Length 93;
Best Local Similarity 66.7%; Pred. No. 6, 83e+01;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
DB 72 QVCADP 77
:::||||
QY 1 EICADP 6

```

ENTRY	22	A39296	#type complete
TITLE		monocyte chemoattractant protein 1 precursor - bovine	
ALTERNATE_NAMES		monocyte chemoattractant factor 1; seminal plasma protein p6	
ORGANISM		#formal_name Bos primigenius taurus #common_name cattle	
DATE		03-Aug-1992 #sequence_revision 03-Aug-1992 #text_change 31-Oct-1997	
ACCESSIONS		A39296; B39296	
REFERENCE		A39296	
#authors		Wempe, F.; Henschen, A.; Schelt, K.H.	
#journal		DNA Cell Biol. (1991) 10:671-679	
#title		Gene expression and cDNA cloning identified a major basic protein constituent of bovine seminal plasma as bovine monocyte-chemoattractant protein-1 (MCP-1).	
#cross-references		MIMD:92096117	
#accession		A39296	
#molecule_type		mRNA	
#residues		1-99 #label WEM	
#cross-references		GB:M84602; GB:M85264; NID:g163394; PID:g163395	
#accession		B39296	
#molecule_type		protein	
#residues		50-68,'X','70-74','X','76 #label WE2	
#experimental_source		seminal vesicle	
CLASSIFICATION		#superfamily macrophage inflammatory protein	
KEYWORDS		glycoprotein	
FEATURE			
1-23		#domain signal sequence #status predicted #label SIG\	
24-99		#product monocyte chemoattractant protein 1 #status predicted #label MAY\	
94		#binding_site carbohydrate (Asn) (covalent) #status predicted	
SUMMARY		#length 99 #molecular_weight 11114 #checksum 9401	
Query Match		88.6%; Score 39; DB 2; Length 99;	
Best Local Similarity		83.3%; Pred. No. 6.83e+01;	
Matches		5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;	
Db	73 EICADP 78		
Qy	1 EICADP 6		
RESULT	23		
ENTRY	JC2336	#type complete	
TITLE		monocyte chemoattractant protein-1 - bovine	
ORGANISM		#formal_name Bos primigenius indicus #common_name zebu cattle	
DATE		20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change 03-May-1996	
ACCESSIONS		JC2336	
REFERENCE		JC2336	
#authors		Wempe, F.; Kuhlmann, J.K.; Schelt, K.H.	
#journal		Biochem. Biophys. Res. Commun. (1994) 202:1272-1279	
#title		Characterization of the bovine monocyte chemoattractant protein-1 gene.	
#accession		JC2336	
#molecule_type		protein	
#residues		1-99 #label WEM	
GENETICS			
#gene		MCP-1	
#introns		26/1; 65/2	
CLASSIFICATION		#superfamily macrophage inflammatory protein	
SUMMARY		#length 99 #molecular_weight 11114 #checksum 9401	
Query Match		88.6%; Score 39; DB 2; Length 99;	
Best Local Similarity		83.3%; Pred. No. 6.83e+01;	
Matches		5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;	
Db	73 EICADP 78		
Qy	1 EICADP 6		

```

RESULT 24
ENTRY 149555 #type complete
TITLE gene C10 protein - mouse
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 21-Aug-1998

ACCESSIONS 149555
REFERENCE 149555
#authors Orlofsky, A.; Berger, M.S.; Prystowsky, M.B.
#journal Cell Regul. (1991) 2:403-412
#title Novel expression pattern of a new member of the MIP-1 family
of cytokine-like genes.
#cross-references MUID:91370083
#accession I49555
##status preliminary; translated from GB/EMBL/DBJ
##molecule_type mRNA
##residues 1-116 #label RES
#cross-references GB:M58004; NID:g192243; PID:g192244

GENETICS C10
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 116 #molecular_weight 12984 #checksum 4161

Query Match 88.6%; Score 39; DB 2; Length 116;
Best Local Similarity 66.7%; Pred. No. 6,836+01;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 87 QVCDP 92
OY 1 EICADP 6

RESULT 25
ENTRY 576512 #type complete
TITLE hypothetical protein - Synecchocystis sp. (strain PCC 6803)
ORGANISM #formal_name Synecchocystis sp.
#variety PCC 6803
DATE 25-Apr-1997 #sequence_revision 25-Apr-1997 #text_change 21-Aug-1998

ACCESSIONS 576512
REFERENCE 574322
#authors Kaneko, T.; Sato, S.; Kotani, H.; Tanaka, A.; Asamizu, E.; Nakamura, Y.; Miyajima, N.; Hirosewa, M.; Sugita, M.; Sasamoto, S.; Kimura, T.; Hosouchi, T.; Matsuno, A.; Muraki, A.; Nakazaki, N.; Naruo, K.; Okumura, S.; Shimpo, S.; Takeuchi, C.; Wada, T.; Watanabe, A.; Yamada, M.; Yasuda, M.; Tabata, S.
#journal DNA Res. (1996) 3:109-136
#title Sequence analysis of the genome of the unicellular cyanobacterium Synecchocystis sp. PCC6803. II. Sequence determination of the entire genome and assignment of potential protein-coding regions.
#cross-references MUID:97061201
#accession 576512
##status preliminary
##molecule_type DNA
##residues 1-296 #label KAN
#cross-references EMBL:D64002; GB:AB001339; NID:g1001612; PID:d1011009; PID:g1001627
#note the nucleotide sequence was submitted to the EMBL Data Library, June 1996
SUMMARY #length 296 #molecular_weight 33245 #checksum 5558

Query Match 88.6%; Score 39; DB 2; Length 296;
Best Local Similarity 50.0%; Pred. No. 6,836+01;
Matches 3; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Db 220 EVCETP 225
OY 1 EICADP 6

RESULT 26

```


ENTRY S29044 #type complete
TITLE endoglucanase A precursor - Butyrivibrio fibrisolvens
ORGANISM #formal_name Butyrivibrio fibrisolvens
DATE 13-Jan-1995 #sequence_revision 13-Jan-1995 #text_change 09-Sep-1997

ACCESSIONS S29044
REFERENCE S29044
#authors Hazlewood, G.P.; Davidson, K.; Laurie, J.I.; Romaniec, M.P.M.; Gilbert, H.J.
#journal J. Gen. Microbiol. (1990) 136:2089-2097
#title Cloning and sequencing of the cels gene encoding endoglucanase A of Butyrivibrio fibrisolvens strain A46.
#accession S29044
#status Preliminary
#molecule_type DNA
#residues 1-429 #label HAZ
#cross-references EMBL:M37031; NID:9144154; PID:9144155
SUMMARY #length 429 #molecular-weight 48858 #checksum 682

Query Match 88.6%; Score 39; DB 2; Length 429;
Best Local Similarity 66.7%; Pred. No. 6.83e+01;
Matches 4; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

DB 245 EICNEP 250
QY 1 EICADP.6

RESULT 27
ENTRY A27631 #type complete
TITLE cellulase (EC 3.2.1.4) precursor - Clostridium acetobutylicum
ALTERNATE_NAMES endo-1,4-beta-glucanase
ORGANISM #formal_name Clostridium acetobutylicum
DATE 31-Dec-1988 #sequence_revision 30-Jun-1991 #text_change 09-Sep-1997

ACCESSIONS A27631
REFERENCE A27631
#authors Zappe, H.; Jones, W.A.; Jones, D.T.; Woods, D.R.
#journal Appl. Environ. Microbiol. (1988) 54:1289-1292
#title Structure of an endo-beta-1,4-glucanase gene from Clostridium acetobutylicum P262 showing homology with endoglucanase genes from Bacillus spp.
#cross-references MUID:88268074
#accession A27631
#molecule_type DNA
#residues 1-448 #label ZAP
#cross-references EMBL:M31311; NID:9144789; PID:9144790
#note the authors translated the codon GAG for residue 116 as Gly, GAA for residue 263 as Gln and AAT for residue 439 as Asp

FUNCTION #description
hydrolysis of 1,4-beta-D-glucosidic linkages in beta-D-glucans such as cellulose and lichenin; can hydrolyze such linkages in beta-D-glucans that also contain 1,3-linkages
cellulose degradation
glycosidase; hydrolase; polysaccharide degradation
SUMMARY #length 448 #molecular-weight 49366 #checksum 3186

Query Match 88.6%; Score 39; DB 2; Length 448;
Best Local Similarity 66.7%; Pred. No. 6.83e+01;
Matches 4; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

DB 171 EICNEP 176
QY 1 EICADP.6

RESULT 28
ENTRY A35971 #type fragment
TITLE mast cell growth factor - mouse (fragment)
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE 14-Dec-1990 #sequence_revision 14-Dec-1990 #text_change

ACCESSIONS 16-Feb-1997
ENTRY A35971
TITLE mast cell growth factor - mouse (fragment)
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE 14-Dec-1990 #sequence_revision 14-Dec-1990 #text_change 16-Feb-1997

ACCESSIONS B35971
REFERENCE B35971
#authors Williams, D.E.; Eisenman, J.; Baird, A.; Rauch, C.; Van Ness, K.; March, C.J.; Park, L.S.; Martin, U.; Mochizuki, D.Y.; Boswell, H.S.; Burgess, G.S.; Cosman, D.; Lyman, S.D.
#journal Cell (1990) 63:167-174
#title Identification of a ligand for the c-kit proto-oncogene.
#cross-references MUID:91004215
#accession A35971
#status Preliminary
#molecule_type protein
#residues 1-49 #label WIL
KEYWORDS transmembrane protein
SUMMARY #length 49 #checksum 6313

Query Match 86.4%; Score 38; DB 2; Length 49;
Best Local Similarity 66.7%; Pred. No. 1.06e+02;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

DB 2 EICGNP 7
QY 1 EICADP.6

RESULT 29
ENTRY B35971 #type fragment
TITLE mast cell growth factor - mouse (fragment)
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE 14-Dec-1990 #sequence_revision 14-Dec-1990 #text_change 16-Feb-1997

ACCESSIONS B35971
REFERENCE B35971
#authors Williams, D.E.; Eisenman, J.; Baird, A.; Rauch, C.; Van Ness, K.; March, C.J.; Park, L.S.; Martin, U.; Mochizuki, D.Y.; Boswell, H.S.; Burgess, G.S.; Cosman, D.; Lyman, S.D.
#journal Cell (1990) 63:167-174
#title Identification of a ligand for the c-kit proto-oncogene.
#cross-references MUID:91004215
#accession B35971
#status Preliminary
#molecule_type protein
#residues 1-51 #label WIL
KEYWORDS transmembrane protein
SUMMARY #length 51 #checksum 2124

Query Match 86.4%; Score 38; DB 2; Length 51;
Best Local Similarity 66.7%; Pred. No. 1.06e+02;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

DB 2 EICGNP 7
QY 1 EICADP.6

RESULT 30
ENTRY C30552 #type complete
TITLE macrophage inflammatory protein 1-beta - mouse
ALTERNATE_NAMES H400; SIS gamma; T-cell activation protein gamma
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE 28-Aug-1989 #sequence_revision 28-Aug-1989 #text_change 20-Mar-1998

ACCESSIONS C30552; J100088; PS0304; S22042
REFERENCE A30552
#authors Brown, K.D.; Zurawski, S.M.; Mosmann, T.R.; Zurawski, G.
#journal J. Immunol. (1989) 142:679-687
#title A family of small inducible proteins secreted by leukocytes are members of a new superfamily that includes leukocyte and fibroblast-derived inflammatory agents, growth factors, and indicators of various activation processes.
#cross-references MUID:89093958
#accession C30552
#molecule_type mRNA

```

##residues 1-92 ##label BRO
##cross-references GB:M35503; NID:G533244; PID:G533245
REFERENCE
#authors Sherry, B.; Tekamp-Olson, P.; Gallegos, C.; Bauer, D.;
Davatelis, G.; Wolpe, S.D.; Masiarz, F.; Colt, D.; Cerami,
A.
#journal J. Exp. Med. (1988) 168: 2251-2259
#title Resolution of the two components of macrophage inflammatory
protein 1, and cloning and characterization of one of those
components, macrophage inflammatory protein 1 beta.
#cross-references MUID:89067830
#accession J10088
##molecule-type mRNA
##residues 1-92 ##label SHE
##cross-references GB:M35590; NID:G199696; PID:G199697
#accession PS0304
##molecule-type protein
##residues 24-33, 'XX', 'X', '38' ##label SH2
REFERENCE
#authors Daubersies, P.; Lepretre, F.; Baillet, B.; Grove, M.;
Pragnell, I.; Plumb, M.
#submission submitted to the EMBL Data Library, October 1991
#description Sequence of the murine macrophage inflammatory protein 1b
gene.
#accession S22042
##status preliminary
##molecule-type DNA
##residues 1-92 ##label DAT
#comment ##cross-references EMBL:X62502; NID:G53126; PID:G53127
COMMENT This protein is a monokine.
GENETICS
#introns 26/1: 64/2
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS glycoprotein
FEATURE
1-23 #domain signal sequence #status predicted #label SIG
24-92 #product macrophage inflammatory protein 1-beta #status
experimental #label MARY
#binding-site carbohydrate (asn) (covalent) #status
predicted
76 #length 92 #molecular-weight 10168 #checksum 7516
SUMMARY
Query Match 86.4%; Score 38; DB 2; Length 92;
Best Local Similarity 66.7%; Pred. No. 1.06e+02;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
Db 72 QICAMP 77
:||||:|
OY 1 EICADP 6

```

Search completed: Thu Apr 1 07:30:11 1999
 Job time : 23 secs.

97 36 81.8 1789 1 IMB1 DROME LAMININ BETA-1 CHAIN P 1.51e+02
 98 36 81.8 2279 1 COAC_SCHRO ACETYL-COA CARBOXYLASE 1.51e+02
 99 36 81.8 2410 1 POLI_BAYMG GENOME POLYPROTEIN 1 (1.51e+02
 100 36 81.8 2412 1 POLI_BAYMG GENOME POLYPROTEIN 1 (1.51e+02

ALIGNMENTS

RESULT 1
 ID EOTA_MOUSE STANDARD: PRT: 97 AA.
 AC P48298;
 DT 01-FEB-1996 (REL. 33, CREATED)
 DT 01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
 GN SCYLL1.
 OS MUS MUSCULUS (MOUSE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUKARYOTA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-LUNG;
 RX MEDLINE; 96004658.
 RA ROTHENBERG M.E., LUSTER A.D., LEDER P.;
 RL PROC. NATL. ACAD. SCI. U.S.A. 92:8960-8964(1995).
 RN [2]
 RP SEQUENCE FROM N.A.
 RC STRAIN-C57BL/6J; TISSUE-LUNG;
 RX MEDLINE; 96158746.
 RA GONZALEZ J.-A., JIA G.-O., AGUIRRE V., FRIEND D., COYLE A.J.,
 RA JERKINS N.A., LIN G.-S., KATZ H., LICHTMAN A., COPELAND N.G., KOPF M.,
 RA GUTTERER-RAMOS J.-C.;
 RL IMMUNITY 4:1-14(1996).
 CC -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
 DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS (A PROMINENT
 FEATURE OF ALLERGIC INFLAMMATORY REACTIONS), BUT NOT
 LYMPHOCYTES, MACROPHAGES OR NEUTROPHILS.
 CC -1- TISSUE SPECIFICITY: EXPRESSED CONSTITUTIVELY IN THE THYMUS.
 CC -1- EXPRESSION INDUCIBLE IN THE LUNG (TYPE I ALVEOLAR EPITHELIAL
 CELLS), INTESTINE, HEART, SPLEEN, KIDNEY.
 CC -1- INDUCTION: BY INTERFERON-GAMMA AND LIPOPOLYSACCHARIDE (LPS).
 CC -1- PTM: O-GLYCOSYLATED (PROBABLE).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 C-C) (CHEMOKINE CC).
 CC EMBL; U26426; G995911; -;
 DR EMBL; U40672; G1113937; -;
 DR MGD; MGI:103576; SCYLL1.
 DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
 DE EOSINOPHIL: CYTOKINE: CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
 KW INFLAMMATORY RESPONSE.
 GN SCYLL1 OR MCP4 OR NCC1.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUKARYOTA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-HEART;
 RX MEDLINE; 97113354.
 RA GARCIA-ZEPEDA E.A., COMBADIERE C., ROTHENBERG M.E., SARAFI M.N.,
 RA LAVIGNE F., HAMID O., MURPHY P.M., LUSTER A.D.;
 RL J. IMMUNOL. 157:5613-5626(1996).
 RN [2]
 RP SEQUENCE FROM N.A., AND SEQUENCE OF 17-98.
 RC TISSUE-FETAL;
 RX MEDLINE; 96235049.
 RA DUGUCCIONI M., LOETSCHER P., FORSMANN U., DENALD B., LI H., LIMA S.H.,
 RA LI Y., KREIDER B., GAROTTA G., THELEN M., BAGGIOLINI M.;
 RL J. EXP. MED. 183:2379-2384(1996).
 RN [3]
 RP SEQUENCE FROM N.A., AND SEQUENCE OF 22-33.
 RC TISSUE-FETAL;
 RX MEDLINE; 97341179.
 RA BERKHOUT T.A., SARAU H.M., MOORES K., WHITE J.R., ELSHOUBAGY N.,

OS RATTUS NORVEGICUS (RAT).
 CC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUKARYOTA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA WILLIAMS C.M., NEWTON D.J., WILSON S.A., COLEMAN J.C.,
 RA FLANAGAN B.F.;
 RL SUBMITTED (DEC-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [2]
 RP SEQUENCE FROM N.A.
 RC TISSUE-LUNG;
 RA ISHII Y.;
 RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 CC -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
 DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT
 FEATURE OF ALLERGIC INFLAMMATORY REACTIONS (BY SIMILARITY).
 CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
 CC -1- PTM: O-GLYCOSYLATED (PROBABLE).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 C-C) (CHEMOKINE CC).
 CC EMBL; Y08358; E274141; -;
 DR EMBL; U96637; G2098785; -;
 DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
 DE EOSINOPHIL: CYTOKINE: CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
 KW INFLAMMATORY RESPONSE.
 GN SCYLL1 OR MCP4 OR NCC1.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUKARYOTA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-HEART;
 RX MEDLINE; 97113354.
 RA GARCIA-ZEPEDA E.A., COMBADIERE C., ROTHENBERG M.E., SARAFI M.N.,
 RA LAVIGNE F., HAMID O., MURPHY P.M., LUSTER A.D.;
 RL J. IMMUNOL. 157:5613-5626(1996).
 RN [2]
 RP SEQUENCE FROM N.A., AND SEQUENCE OF 17-98.
 RC TISSUE-FETAL;
 RX MEDLINE; 96235049.
 RA DUGUCCIONI M., LOETSCHER P., FORSMANN U., DENALD B., LI H., LIMA S.H.,
 RA LI Y., KREIDER B., GAROTTA G., THELEN M., BAGGIOLINI M.;
 RL J. EXP. MED. 183:2379-2384(1996).
 RN [3]
 RP SEQUENCE FROM N.A., AND SEQUENCE OF 22-33.
 RC TISSUE-FETAL;
 RX MEDLINE; 97341179.
 RA BERKHOUT T.A., SARAU H.M., MOORES K., WHITE J.R., ELSHOUBAGY N.,

Query Match 100.0%; Score 44; DB 1; Length 97;
 Best Local Similarity 100.0%; Pred. No. 3.26e+00;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 71 EICADP 76

QY 1 EICADP 6

RESULT 3
 ID MCP4_HUMAN STANDARD: PRT: 98 AA.
 AC Q99616;
 DT 15-JUL-1998 (REL. 36, CREATED)
 DT 15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 4 PRECURSOR (MCP-4) (MONOCYTE
 CHEMOTACTIC PROTEIN 4) (CK-BETA10) (MCC-1).
 GN SCYLL1 OR MCP4 OR NCC1.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUKARYOTA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-HEART;
 RX MEDLINE; 97113354.
 RA GARCIA-ZEPEDA E.A., COMBADIERE C., ROTHENBERG M.E., SARAFI M.N.,
 RA LAVIGNE F., HAMID O., MURPHY P.M., LUSTER A.D.;
 RL J. IMMUNOL. 157:5613-5626(1996).
 RN [2]
 RP SEQUENCE FROM N.A., AND SEQUENCE OF 17-98.
 RC TISSUE-FETAL;
 RX MEDLINE; 96235049.
 RA DUGUCCIONI M., LOETSCHER P., FORSMANN U., DENALD B., LI H., LIMA S.H.,
 RA LI Y., KREIDER B., GAROTTA G., THELEN M., BAGGIOLINI M.;
 RL J. EXP. MED. 183:2379-2384(1996).
 RN [3]
 RP SEQUENCE FROM N.A., AND SEQUENCE OF 22-33.
 RC TISSUE-FETAL;
 RX MEDLINE; 97341179.
 RA BERKHOUT T.A., SARAU H.M., MOORES K., WHITE J.R., ELSHOUBAGY N.,

RA APPELBAUM E., REAPE T.J., BRANNER M., MAKWANA J., FOLEY J.J.,
 RA SCHMIDT D.B., IMBRIGIA C., MACNULTY D., MATTHEWS J., O'DONNELL K.,
 RA O'SHANNESST D., SCOTT M., GROOT P.H.E., MACPHEE C.;
 RL J. BIOL. CHEM. 272:16404-16413(1997).
 RN [4]
 RP SEQUENCE FROM N.A.
 RA DANTE M., GIBSON A.;
 RL SUBMITTED (AUG-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, LYMPHOCYTES,
 CC BASOPHILS AND EOSINOPHILS, BUT NOT NEUTROPHILS. SIGNALS THROUGH
 CC CCR2B AND CCR4 RECEPTORS. PLAYS A ROLE IN THE ACCUMULATION OF
 CC LEUKOCYTES AT BOTH SIDES OF ALLERGIC AND NONALLERGIC INFLAMMATION.
 CC MAY BE INVOLVED IN THE RECRUITMENT OF MONOCYTES INTO THE ARTERIAL
 CC WALL DURING THE DISEASE PROCESS OF ARTERIOSCLEROSIS. MAY PLAY A
 CC ROLE IN THE MONOCYTE ATTRACTION IN TISSUES CHRONICALLY EXPOSED TO
 CC EXOGENOUS PATHOGENS.
 CC -1- MASS SPECTROMETRY: MW=9314; MW-ERR=30; METHOD=MALDI; RANGE=17-98.
 CC -1- MASS SPECTROMETRY: MW=8760; MW-ERR=30; METHOD=MALDI; RANGE=22-98.
 CC -1- MASS SPECTROMETRY: MW=8575; MW-ERR=30; METHOD=MALDI; RANGE=24-98.
 CC -1- INDUCTION: BY INTERLEUKIN-1 AND TNF-ALPHA.
 CC -1- TISSUE SPECIFICITY: WIDELY EXPRESSED. FOUND IN SMALL INTESTINE,
 CC THYMUS, COLON, LUNG, TRACHEA, STOMACH AND LYMPH NODE. LOW LEVELS
 CC SEEN IN THE PULMONARY ARTERY SMOOTH MUSCLE CELLS.
 CC -1- THIS PROTEIN CAN BIND HEPARIN.
 CC -1- PTM: ONE MAJOR ISOFORM MCP-4, AND TWO MINOR ISOFORMS (LA)MCP-4 AND
 CC (FNPQGLA)MCP-4 ARE PRODUCED BY DIFFERENTIAL SIGNAL CLEAVAGE.
 CC (LA)MCP-4 IS ABOUT 30 FOLD LESS ACTIVE THAN MCP-4.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 CC EMBL: U46767; G1732123; -.
 CC DR EMBL: AC002482; G2340091; -.
 CC DR MIM: 601391; -.
 DR PROSITE: P500472; SMALL_CYTOKINES_CC; 1.
 DR CYTOKINE; CHEMOKINIS; SIGNAL; GLYCOPROTEIN; INFLAMMATORY RESPONSE.
 FT SIGNAL 1 23
 FT CHAIN 24 98 MONOCYTE CHEMOTACTIC PROTEIN 4.
 FT MOD.RES. 24 24 PYRROLIDONE CARBOXYLIC ACID.
 FT DISULFID 34 58 BY SIMILARITY.
 FT DISULFID 35 74 BY SIMILARITY.
 FT CARBOHYD 29 29 POTENTIAL.
 FT SEQUENCE 98 AA: 10986 MW: 10986 DF52P6EC CRC32;
 SQ
 Query Match 100.0%; Score 44; DB 1; Length 98;
 Best Local Similarity 100.0%; Pred. No. 3.26e+00;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

DB 72 EICADP 77
 OY 1 EICADP 6

RESULT 4
 ID MCP1_HUMAN STANDARD; PRT; 99 AA.
 AC P13500;
 DT 01-JAN-1990 (REL. 13, CREATED)
 DT 01-JAN-1990 (REL. 13, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE CHEMOTACTIC
 DE AND ACTIVATING FACTOR) (MCAF) (MONOCYTE SECRETORY PROTEIN JE)
 DE (MONOCYTE CHEMOTACTIC PROTEIN 1) (HC11) (SMALL INDICIBLE CYTOKINE
 DE A2).
 GN SC1A2 OR MCP1.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 89165862.
 RA FURUTANI Y., NOMURA H., NOTAKE M., OYAMADA Y., FUKUTI T., YAMADA M.,
 RA LARSEN C.G., OPPENHEIM J.J., MATSUSHIMA K.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 159:249-255(1989).
 RN [2]
 RP SEQUENCE FROM N.A.

RX MEDLINE: 90097880.
 RA ROLLINS B.J., STIER P., ERNST T., WONG G.G.;
 RL MOL. CELL. BIOL. 9:4687-4695(1989).
 RN [3]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 89153605.
 RA YOSHIMURA T., YUKIKI N., MOORE S.K., APPELLA E., LERMAN M.I.,
 RA LEONARD E.J.;
 RL FEBS LETT. 244:487-493(1989).
 RN [4]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 90290466.
 RA SHY Y.J., LI Y.S., KOLATTURUDY P.E.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 169:346-351(1990).
 RN [5]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 91207938.
 RA CHANG H.C., HSU F., FREEMAN G.J., GRIFFIN J.D., REINHERZ E.L.;
 RL INT. IMMUNOL. 1:388-399(1989).
 RN [6]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 94150478.
 RA LI Y.S., SHY Y.J., WRIGHT J.G., VALENTE A.J., CORNHILL J.F.,
 RA KOLATTURUDY P.E.;
 RL MOL. CELL. BIOCHEM. 126:61-68(1993).
 RN [7]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 92095166.
 RA YOSHIMURA T., LEONARD E.J.;
 RL ADV. EXP. MED. BIOL. 305:47-56(1991).
 RN [8]
 RP SEQUENCE OF 24-99.
 RX MEDLINE: 89184525.
 RA ROBINSON E.A., YOSHIMURA T., LEONARD E.J., TANAKA S., GRIFFIN P.R.,
 RA SHABANOWITZ J., HUNT D.F., APPELLA E.;
 RL PROC. NATL. ACADE. SCI. U.S.A. 86:1850-1854(1989).
 RN [9]
 RP SEQUENCE OF 29-53 AND 82-92.
 RX MEDLINE: 90211336.
 RA DECOCK B., CONINGS R., LENAERTS J.-P., BILLAU A., VAN DAMME J.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 167:904-909(1990).
 RN [10]
 RP 3D-STRUCTURE MODELLING.
 RX MEDLINE: 91312872.
 RA GRONENBORN A.M., CLORE G.M.;
 RL PROTEIN ENG. 4:263-269(1991).
 RN [11]
 RP X-RAY CRYSTALLOGRAPHY (1.85 ANGSTROMS).
 RX MEDLINE: 97143315.
 RA LOBKOWSKI J., BUDACZ G., DONATILE P.J., HANDEL T.M., WLODAMER A.;
 RL NAT. STRUCT. BIOL. 4:64-69(1997).
 RN [12]
 RP STRUCTURE BY NMR.
 RX MEDLINE: 96234959.
 RA HANDEL T.M., DONATILE P.J.;
 RL BIOCHEMISTRY 35:6569-6584(1996).
 RN [13]
 RP EFFECT OF DELETION OF N-TERMINAL RESIDUES.
 RX MEDLINE: 96195223.
 RA WEBER M., UGUCCIONI M., BAGGIOLINI M., CLARK-LEWIS I., DAHINEN C.A.;
 RL J. EXP. MED. 183:681-685(1996).
 RN [14]
 RP MUTAGENESIS.
 RX MEDLINE: 94253189.
 RA ZHANG Y.J., RUTLEDGE B.J., ROLLINS B.J.;
 RL J. BIOL. CHEM. 269:15918-15924(1994).
 RN [15]
 RP SUBUNIT.
 RX MEDLINE: 97053697.
 RA KIM K.-S., RAJARATHNAM K., CLARK-LEWIS I., SYKES B.D.;
 RL FEBS LETT. 395:277-282(1996).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND BASOPHILS
 CC BUT NOT NEUTROPHILS OR EOSINOPHILS. AUGMENTS MONOCYTE ANTI-TUMOR

CC ACTIVITY. HAS BEEN IMPLICATED IN THE PATHOGENESIS OF DISEASES
 CC CHARACTERIZED BY MONOCYTIC INFILTRATES, LIKE PSORIASIS, RHEUMATOID
 CC ARTHRITIS OR ATHEROSCLEROSIS. MAY BE INVOLVED IN THE RECRUITMENT
 CC OF MONOCYTES INTO THE ARTERIAL WALL DURING THE DISEASE PROCESS OF
 CC ATHEROSCLEROSIS.
 CC -1- SUBUNIT: MONOMER OR HOMODIMER. IN EQUILIBRIUM.
 CC -1- PTM: PROCESSING AT THE N-TERMINUS CAN REGULATE RECEPTOR AND TARGET
 CC CELL SELECTIVITY. DELETION OF THE AMINO- TERMINAL RESIDUE CONVERTS
 CC IT FROM AN ACTIVATOR OF BASOPHIL TO AN EOSINOPHIL CHEMOATTRACTANT.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 CC EMBL: M31626; G386961; -
 CC EMBL: M30816; G386961; JOINED.
 CC EMBL: M31625; G386961; JOINED.
 CC EMBL: M24545; G307163; -
 CC EMBL: M28226; G338009; -
 CC EMBL: X14768; G34514; -
 CC EMBL: M37719; G487124; -
 CC EMBL: M28225; G338007; -
 CC EMBL: M28223; G338007; JOINED.
 CC EMBL: M28224; G338007; JOINED.
 CC EMBL: S69738; G545465; -
 CC EMBL: S71513; G240868; -
 CC EMBL: A17786; G641145; -
 CC PIR: A35474; A35474.
 CC PIR: S03339; S03339.
 CC PDB: 1DOK; 12-MAR-97.
 CC PDB: 1DOL; 12-MAR-97.
 CC PDB: 1DOM; 14-OCT-96.
 CC PDB: 1DOM; 14-OCT-96.
 CC PDB: 1MCA; 15-OCT-94.
 CC MIM: 158105; -
 CC DR PROSITE: PS00472; SMALL CYTOKINES CC: 1.
 CC KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; 3D-STRUCTURE.
 CC FT SIGNAL 1 23
 CC FT CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 1.
 CC FT MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID.
 CC FT DISULFID 34 59
 CC FT DISULFID 35 75
 CC FT CARBOHYD 37 37
 CC FT VARIANT 76 76
 CC FT MUTAGEN 24 24 MISSING: LOSS OF ACTIVITY.
 CC FT MUTAGEN 25 32 MISSING: LOSS OF ACTIVITY.
 CC FT MUTAGEN 24 85 MISSING: 90% REDUCTION IN ACTIVITY.
 CC FT MUTAGEN 24 91 MISSING: 83% REDUCTION IN ACTIVITY.
 CC FT MUTAGEN 26 26 D->A: 90% REDUCTION IN ACTIVITY.
 CC FT MUTAGEN 29 29 N->A: 50% REDUCTION IN ACTIVITY.
 CC FT MUTAGEN 47 47 R->F: 95% REDUCTION IN ACTIVITY.
 CC FT MUTAGEN 50 50 S->Q: 40% REDUCTION IN ACTIVITY.
 CC FT MUTAGEN 51 51 Y->D: LOSS OF ACTIVITY.
 CC FT MUTAGEN 53 53 R->L: LOSS OF ACTIVITY.
 CC FT MUTAGEN 91 91 D->L: 90% REDUCTION IN ACTIVITY.
 CC SQ SEQUENCE 99 AA: 11025 MW: 5353B695 CRC32;
 CC Query Match 100.0%; Score 44; DB 1; Length 99;
 CC Best Local Similarity 100.0%; Pred. No. 3.26e+00;
 CC Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Db 73 EICADP 78
 QY 1 EICADP 6
 RESULT 5
 ID MCP3_HUMAN STANDARD: PRT: 99 AA.
 AC P80098;
 DT 01-DEC-1992 (REL. 24, CREATED)
 DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 3 PRECURSOR (MCP-3) (MONOCYTE
 DE CHEMOATTRACTANT PROTEIN 3) (NC28).
 GN SCY7 OR MCP3.
 OS HOMO SAPIENS (HUMAN).

CC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC OOC EUTHERIA; PRIMATES.
 CC RN [1]
 CC RN SEQUENCE FROM N.A., AND SEQUENCE OF 31-67 AND 71-99.
 CC RX MEDLINE: 93213290.
 CC RA OPENAKKER G., FROYEN G., FITTEN P., PROOST P., VAN DAMME J.;
 CC RL BIOCHEM. BIOPHYS. RES. COMMUN. 191:535-542(1993).
 CC RN [2]
 CC RN SEQUENCE FROM N.A.
 CC RX MEDLINE: 94375065.
 CC RA OPENAKKER G., FITTEN P., NYS G., FROYEN G., VAN ROY N., SPELLEMAN F.,
 CC RA LAUREYS G., VAN DAMME J.;
 CC RL GENOMICS 21:403-408(1994).
 CC RN [3]
 CC RN SEQUENCE FROM N.A.
 CC RX MEDLINE: 93305913.
 CC RA MINTY A., CHALON P., GUILLEMOT J.C., KAGHAD M., LIAUZUN P.,
 CC RA MAGAZIN M., MILLOUX B., MINTY C., RAMOND P., VITA N., LUPPER J.,
 CC RA SHIRE D., FERRARA P., CAPUT D.;
 CC RL EUR. CYTOKINE NETW. 4:99-110(1993).
 CC RN [4]
 CC RN SEQUENCE OF 30-99.
 CC RC TISSUE-OSTEOSARCOMA;
 CC RX MEDLINE: 92308855.
 CC RA VAN DAMME J., PROOST P., LENAERTS J.-P., OPENAKKER G.;
 CC RL J. EXP. MED. 176:59-65(1992).
 CC RN [5]
 CC RN STRUCTURE BY NMR, AND SUBUNIT.
 CC RX MEDLINE: 97053697.
 CC RA KIM K.-S., RAJARATHNAM K., CLARK-LEWIS I., SYKES B.D.;
 CC RL FEBS LETT. 395:277-282(1996).
 CC RN [6]
 CC RN STRUCTURE BY NMR.
 CC RX MEDLINE: 97263733.
 CC RA MEUNIER S., BERNASAU J.-M., GUILLEMOT J.-C., FERRARA P., DARBON H.;
 CC RL BIOCHEMISTRY 36:4412-4422(1997).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND
 CC EOSINOPHILS. BUT NOT NEUTROPHILS. AUGMENTS MONOCYTE ANTI-TUMOR
 CC ACTIVITY. ALSO INDUCES THE RELEASE OF GELATINASE B. THIS PROTEIN
 CC CAN BIND HEPARIN.
 CC CC -1- SUBUNIT: MONOMER.
 CC CC -1- PTM: O-GLYCOSYLATED.
 CC CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 CC DR EMBL: X72308; G313708; ALT_INIT.
 CC DR EMBL: X72309; -; NOT_ANNOTATED_CDS.
 CC DR EMBL: X71087; G288399; -
 CC DR EMBL: X71087; G288398; ALT_INIT.
 CC DR EMBL: X71087; G288397; ALT_INIT.
 CC DR PIR: JC1478; JC1478.
 CC DR PIR: S32222; S32222.
 CC DR PIR: AS4678; AS4678.
 CC DR PDB: 1NCV; 15-OCT-97.
 CC DR MIM: 158106; -
 CC DR PROSITE: PS00472; SMALL CYTOKINES CC: 1.
 CC KW CYTOKINE; CHEMOTAXIS; HEPARIN-BINDING; GLYCOPROTEIN; SIGNAL;
 CC KM INFLAMMATORY RESPONSE; 3D-STRUCTURE.
 CC FT SIGNAL 1 23
 CC FT CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 3.
 CC FT MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID.
 CC FT DISULFID 34 59 BY SIMILARITY.
 CC FT DISULFID 35 75 BY SIMILARITY.
 CC FT CARBOHYD 29 29
 CC FT CONFLICT 30 30 T->K (IN REF. 4).
 CC FT CONFLICT 68 70 MISSING (IN REF. 4).
 CC SQ SEQUENCE 99 AA: 11200 MW: 7502E19C CRC32;
 CC Query Match 100.0%; Score 44; DB 1; Length 99;
 CC Best Local Similarity 100.0%; Pred. No. 3.26e+00;
 CC Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Db 73 EICADP 78
 QY 1 EICADP 6
 RESULT 5
 ID MCP3_HUMAN STANDARD: PRT: 99 AA.
 AC P80098;
 DT 01-DEC-1992 (REL. 24, CREATED)
 DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 3 PRECURSOR (MCP-3) (MONOCYTE
 DE CHEMOATTRACTANT PROTEIN 3) (NC28).
 GN SCY7 OR MCP3.
 OS HOMO SAPIENS (HUMAN).

OY 1 EICADP 6

RESULT 6
ID MCPI_CANFA STANDARD; PRT; 101 AA.
AC P52203;
DT 01-OCT-1996 (REL. 34, CREATED)
DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE
DE CHEMOATTRACTANT PROTEIN-1).
GN SCV22 OR MCPI.
OS CANIS FAMILIARIS (DOG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; CARNIVORA.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-JUGULAR VEIN ENDOTHELIAL;
RX MEDLINE: 97176620.
RA KUMAR A.G., BALLANTYNE C.M., MICHAEL L.H., KUKIELKA G.L., YOUNGER K.A.,
RA LINSEY M.L., HAWKINS H.K., BIRDSALL H.H., MACKAY C.R., LAROSA G.J.,
RA ROSSEN R.D., SMITH C.W., ENTMAN M.L.;
RL CIRCULATION 95:693-700(1997).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC NEUTROPHILS. IMPORTANT FACTOR IN THE COURSE OF THE INFLAMMATORY
CC REACTION TO REPERFUSION OF THE PREVIOUSLY ISCHEMIC MYOCARDIUM.
CC MAY PLAY A SIGNIFICANT ROLE IN MONOCYTE TRAFFICKING INTO THE
CC REPERFUSED MYOCARDIUM.
CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
CC -1- INDUCTION: BY TNF-ALPHA.
CC -1- TISSUE SPECIFICITY: ENDOTHELIUM OF SMALL VEINS AND INTRAPASCICULAR
CC VEINS, AND INFILTRATING LEUKOCYTES.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
CC EMBL: U29653; G114186;
DR PROSITE: PS00472; SMALL CYTOKINES_CC; 1.
KM CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
FT SIGNAL 1 23
FT CHAIN 24 101
FT MOD_RES 24 24
FT PYROGLUTAMIC CARBOXYLIC ACID (BY
FT SIMILARITY).
FT DISULFID 34 59
FT DISULFID 35 75
FT BY SIMILARITY.
SQ SEQUENCE 101 AA; 11121 MW; A7075B14 CRC32;

Query Match
Best Local Similarity 100.0%; Score 44; DB 1; Length 101;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

DB 73 EICADP 78
OY 1 EICADP 6

RESULT 7
ID MCP5_MOUSE STANDARD; PRT; 104 AA.
AC Q62401;
DT 01-NOV-1997 (REL. 35, CREATED)
DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 5 PRECURSOR (MCP-5) (MCP-1 RELATED
DE CHEMOKINE).
GN SCV212 OR MCP5.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 97079149.
RA JIA G.-O., GONZALO J.A., LLOYD C., KREMER L., LU L., MARTINEZ A.C.,
RA WERSHTEL B.R., GUTIERREZ-RAMOS J.C.;
RL J. EXP. MED. 184:1939-1951(1996).
RN [2]

RP SEQUENCE FROM N.A.
RX MEDLINE: 97149438.
RA SARAFI M.N., GARCIA-ZEPEDA E.A., MACLEAN J.A., CHARO I.F.,
RA LUSTER A.D.;
RL J. EXP. MED. 185:99-109(1997).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS EOSINOPHILS, MONOCYTES,
CC AND LYMPHOCYTES BUT NOT NEUTROPHILS. POTENT MONOCYTE ACTIVE
CC CHEMOKINE THAT SIGNALS THROUGH CCR2. INVOLVED IN ALLERGIC
CC INFLAMMATION AND THE HOST RESPONSE TO PATHOGENS AND MAY PLAY A
CC PIVOTAL ROLE DURING EARLY STAGES OF ALLERGIC LUNG INFLAMMATION.
CC -1- SUBUNIT: HOMODIMER (BY SIMILARITY).
CC -1- TISSUE SPECIFICITY: PREDOMINANTLY EXPRESSED IN THE LYMPH NODES AND
CC THYMUS. ALSO FOUND IN THE SALIVARY GLANDS CONTAINING LYMPH NODES.
CC BREAST, HEART, LUNG, BRAIN, SMALL INTESTINE, KIDNEY AND COLON.
CC -1- INDUCTION: BY IFN-GAMMA AND LIPOPOLYSACCHARIDE (LPS).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
CC EMBL: U50712; G1477582;
DR EMBL: U66670; G1881583;
DR MGI:108224; SCV2.
DR PROSITE: PS00472; SMALL CYTOKINES_CC; 1.
KM CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
FT SIGNAL 1 22
FT CHAIN 23 104
FT DISULFID 33 58
FT DISULFID 34 74
FT BY SIMILARITY.
SQ SEQUENCE 104 AA; 11659 MW; 08FA6C35 CRC32;

Query Match
Best Local Similarity 100.0%; Score 44; DB 1; Length 104;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

DB 72 EICADP 77
OY 1 EICADP 6

RESULT 8
ID MCP1_RAT STANDARD; PRT; 148 AA.
AC P14844;
DT 01-APR-1990 (REL. 14, CREATED)
DT 01-APR-1990 (REL. 14, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (IMMEDIATE-EARLY
DE SERUM-RESPONSIVE JE PROTEIN).
GN SCV22 OR JE OR MCP1.
OS RATUS NORVEGICUS (RAT).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-WAG/RIT; TISSUE-KIDNEY;
RX MEDLINE: 90174947.
RA TIMMERS H.T.H.M., PRONK G.J., BOS J.L., VAN DER EB A.J.;
RL NUCLEIC ACIDS RES. 18:23-34(1990).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 91128376.
RA YOSHIMURA T., TAKEYA M., TAKAHASHI K.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 174:504-509(1991).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC NEUTROPHILS.
CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
CC EMBL: M57441; G205334;
DR EMBL: M57441; G205334;
DR PIR: J0128; J0128.
DR PIR: S07723; S07723.
DR HSSP: P13500; IMCA.
DR PROSITE: PS00472; SMALL CYTOKINES_CC; 1.
KM CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
FT SIGNAL 1 23
FT BY SIMILARITY.

FT CHAIN 24 148 MONOCYTE CHEMOTACTIC PROTEIN 1
 FT MOD_RRS 24 24 PYRROLIDONE CARBOXYLIC ACID (BY
 FT DISULFID 34 59 SIMILARITY).
 FT DISULFID 35 75 BY SIMILARITY.
 FT CARBOHYD 126 126 POTENTIAL.
 SQ SEQUENCE 148 AA; 16460 MW; DB97F97C CRC32;
 Query Match 100.0%; Score 44; DB 1; Length 148;
 Best Local Similarity 100.0%; Pred. No. 3.26e+00;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Db 73 EICADP 78
 QY 1 EICADP 6
 RESULT 9
 ID THCB_RHOSO STANDARD; PRT: 436 AA.
 AC P43492;
 DT 01-NOV-1995 (REL. 32, CREATED)
 DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
 DE CYTOCHROME P450 116 (EC 1.14.-.-).
 GN THCB OR CYP116.
 OS RHODOCOCUS SP. (STRAIN N186/21).
 OC PROKARYOTA; FIRMICUTES; ACTINOMYCETALES; NOCARDIOPHORA.
 RN [1]
 RP SEQUENCE FROM N.A., AND SEQUENCE OF 1-20.
 RC STRAIN=N186/21;
 RX MEDLINE; 95138028.
 RA NGUY I., SCHOOF G., COMPERNOLLE F., PROOST P., VANDERLEYDEN J.,
 RA DE MOT R.,
 RL J. BACTERIOL. 177:676-687(1995).
 CC -1- FUNCTION: DEGRADATION OF THIOCARBAMATE HERBICIDES.
 CC -1- INDUCTION: BY EPTC (S-ETHYL DIISOPROPYLCARBAMOTHOATE).
 CC -1- SIMILARITY: BELONGS TO THE CYTOCHROME P450 FAMILY.
 DR EMBL: U17130; G576670; -.
 DR PROSITE; PS00086; CYTOCHROME_P450; 1.
 KW OXIDOREDUCTASE; MONOOXYGENASE; ELECTRON TRANSPORT; HEME.
 FT INT_MET 0
 FT METAL 374 374 HEME (BY SIMILARITY).
 SQ SEQUENCE 436 AA; 48796 MW; 5AA794CD CRC32;
 Query Match 100.0%; Score 44; DB 1; Length 436;
 Best Local Similarity 100.0%; Pred. No. 3.26e+00;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Db 288 EICADP 293
 QY 1 EICADP 6
 RESULT 10
 ID CAN2_RAT STANDARD; PRT: 700 AA.
 AC 007009;
 DT 01-JUN-1994 (REL. 29, CREATED)
 DT 01-JUN-1994 (REL. 29, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE CALPAIN 2, LARGE (CATALYTIC) SUBUNIT (EC 3.4.22.17) (CALCIUM-ACTIVATED
 NEUTRAL PROTEINASE) (CANP) (M-TYPE).
 GN CAPN2.
 OS RATIUS NORVEGICUS (RAT).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 94032492.
 RA DEJUCA C.I., DAVIES P.L., SAMIS J.A., ELCE J.S.;
 RL BIOCHIM. BIOPHYS. ACTA 1216:81-93(1993).
 CC -1- FUNCTION: CALPAINS ARE CALCIUM-ACTIVATED NON-LYSOSOMAL THIO-
 CC PROTEASES.
 CC -1- ENZYME REGULATION: CALPAIN II IS ACTIVATED BY MILLIMOLAR

CC CONCENTRATIONS OF CALCIUM.
 CC -1- SUBUNIT: HETERODIMER OF A LARGE (CATALYTIC) AND A SMALL
 CC (REGULATORY) SUBUNIT. CYTOPLASMIC.
 CC -1- SUBCELLULAR LOCATION: CYTOPLASMIC.
 CC -1- THIS PROTEIN SEEMS TO BIND TWO MOLES OF CALCIUM.
 CC -1- IN RAT THERE SEEMS TO BE 2 TYPES OF CALPAIN: UBIQUITOUS FORMS -
 CC CALPAIN I (MICRO-MOLES CA++ REQUIRING) AND CALPAIN II (MILI-MOLE
 CC CA++ REQUIRING), AND TISSUE SPECIFIC FORMS - CALPAIN P94 AND NC12.
 CC THE SMALL UNIT IS COMMON TO ALL FORMS.
 CC -1- SIMILARITY: TO OTHER EF-HAND CALCIUM BINDING PROTEINS.
 CC -1- SIMILARITY: BELONGS TO PEPTIDASE FAMILY C2; ALSO KNOWN AS THE
 CC CALPAIN FAMILY OF THIOL PROTEASES.
 DR EMBL: L09120; G402666; -.
 DR PIR: S38361; S38361.
 DR PROSITE; PS00018; EF_HAND; 2.
 DR PROSITE; PS00139; THIOL_PROTEASE_CYS; 1.
 DR PROSITE; PS00639; THIOL_PROTEASE_HIS; FALSE NEG.
 DR PROSITE; PS00640; THIOL_PROTEASE_ASN; FALSE NEG.
 KW HYDROLASE; THIOL PROTEASE; CALCIUM-BINDING; MULTIGENE FAMILY.
 FT DOMAIN 1 74
 FT DOMAIN 75 327 I, REGULATION OF PROTEASE ACTIVITY.
 FT DOMAIN 328 533 II, THIOL PROTEASE.
 FT DOMAIN 534 700 III.
 FT ACT_SITE 105 105 IV, CALCIUM-BINDING.
 FT ACT_SITE 262 262 BY SIMILARITY.
 FT ACT_SITE 286 286 BY SIMILARITY.
 FT CA_BIND 585 596 SITE 1 (PROBABLE).
 FT CA_BIND 615 626 SITE 2 (PROBABLE).
 FT DOMAIN 650 661 ANCESTRAL CALCIUM SITE 3 (POTENTIAL).
 FT DOMAIN 680 691 ANCESTRAL CALCIUM SITE 4 (POTENTIAL).
 SQ SEQUENCE 700 AA; 79919 MW; 8B5835BA CRC32;
 Query Match 100.0%; Score 44; DB 1; Length 700;
 Best Local Similarity 100.0%; Pred. No. 3.26e+00;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Db 80 EICADP 85
 QY 1 EICADP 6
 RESULT 11
 ID CAN2_MOUSE STANDARD; PRT: 700 AA.
 AC 008529; 035518;
 DT 01-NOV-1997 (REL. 35, CREATED)
 DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE CALPAIN 2, LARGE (CATALYTIC) SUBUNIT (EC 3.4.22.17) (CALCIUM-ACTIVATED
 NEUTRAL PROTEINASE) (CANP) (M-TYPE) (MILLIMOLAR-CALPAIN).
 GN CAPN2.
 OS MUS MUSCULUS (MOUSE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-BALB/C;
 RA DEAR T.N.;
 RL SUBMITTED (APR-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [2]
 RP SEQUENCE FROM N.A.
 RC STRAIN-BALB/C;
 RA OZAKI Y.;
 RL SUBMITTED (OCT-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 CC -1- FUNCTION: CALPAINS ARE CALCIUM-ACTIVATED NON-LYSOSOMAL THIO-
 CC PROTEASES.
 CC -1- ENZYME REGULATION: CALPAIN II IS ACTIVATED BY MILLIMOLAR
 CC CONCENTRATIONS OF CALCIUM (BY SIMILARITY).
 CC -1- SUBUNIT: HETERODIMER OF A LARGE (CATALYTIC) AND A SMALL
 CC (REGULATORY) SUBUNIT. CYTOPLASMIC.
 CC -1- SUBCELLULAR LOCATION: CYTOPLASMIC.
 CC -1- IN MAMMALS THERE SEEM TO BE 3 DISTINCT FORMS: CALPAIN I (MICRO-
 CC MOLES CA++ REQUIRING), CALPAIN II (MILI-MOLE CA++ REQUIRING),
 CC AND CALPAIN P94. THE SMALL UNIT IS COMMON TO ALL FORMS.


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CC -1- THIS PROTEIN SEEMS TO BIND TWO MOLES OF CALCIUM (BY SIMILARITY).
CC -1- SIMILARITY: TO OTHER EF-HAND CALCIUM BINDING PROTEINS.
CC -1- SIMILARITY: BELONGS TO PEPTIDASE FAMILY C2; ALSO KNOWN AS THE
CC CALPAIN FAMILY OF THIOL PROTEASES.
DR EMBL: Y10139; E293718; -.
DR EMBL: D38117; D1023840; -.
DR MGI: 88264; CAPN2.
DR PROSITE: PS00018; EF_HAND. 2.
DR PROSITE: PS00139; THIOL_PROTEASE_CYS; 1.
DR PROSITE: PS00639; THIOL_PROTEASE_HIS; FALSE_NEG.
DR PROSITE: PS00640; THIOL_PROTEASE_ASN; FALSE_NEG.
KW HYDROLASE; THIOL PROTEASE; CALCIUM-BINDING; MULTIGENE FAMILY.
FT DOMAIN 1 74
FT DOMAIN 75 327
FT DOMAIN 328 533
FT DOMAIN 534 700
FT ACT_SITE 105 105
FT ACT_SITE 262 262
FT ACT_SITE 286 286
FT CA_BIND 585 596
FT CA_BIND 615 626
FT DOMAIN 650 661
FT DOMAIN 680 691
FT CONFLICT 194 194
FT CONFLICT 212 212
FT CONFLICT 402 402
SQ SEQUENCE 700 AA; 79830 MW; E8067F2B CRC32;

Query Match 100.0%; Score 44; DB 1; Length 700;
Best Local Similarity 100.0%; Pred. No. 3.26+00;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 80 EICADP 85
OY 1 EICADP 6

RESULT 12
ID CAN2_HUMAN STANDARD: PRT; 700 AA.
AC P17655; Q16738;
DT 01-AUG-1990 (REL. 15, CREATED)
DT 01-AUG-1990 (REL. 15, LAST SEQUENCE UPDATE)
DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
DE CALPAIN 2, LARGE (CATALYTIC) SUBUNIT (EC 3.4.22.17) (CALCIUM-ACTIVATED
DE NEUTRAL PROTEINASE) (CAMP) (M-TYPE).
OS CAPN2 OR CAPN2.
GN HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; PRIMATES.
RN [1]
RX MEDLINE: 89166474.
RA IMAJOH S., AOKI K., OHNO S., EMORI Y., KAMASAKI H., SUGIHARA H.,
RA SUZUKI K.;
RA BIOCHEMISTRY 27:8122-8128(1988).
RL [2]
RN [2]
RP SEQUENCE OF 1-79 FROM N.A.
RX TISSUE-LYMPH NODE;
RX MEDLINE: 89197947.
RA HATA A., OHNO S., AKITA Y., SUZUKI K.;
RA J. BIOL. CHEM. 264:6404-6411(1989).
CC -1- FUNCTION: CALPAINS ARE CALCIUM-ACTIVATED NON-LYSOSOMAL THIO-
CC PROTEASES.
CC -1- ENZYME REGULATION: CALPAIN II IS ACTIVATED BY MILIMOLAR
CC CONCENTRATIONS OF CALCIUM.
CC -1- SUBUNIT: HETERODIMER OF A LARGE (CATALYTIC) AND A SMALL
CC (REGULATORY) SUBUNIT.
CC -1- SUBCELLULAR LOCATION: CYTOPLASMIC.
CC -1- IN MAMMALS THERE SEEM TO BE 3 DISTINCT FORMS: CALPAIN I (MICRO-
CC MOLES CA++ REQUIRING), CALPAIN II (MILI-MOLE CA++ REQUIRING),
CC AND CALPAIN P94. THE SMALL UNIT IS COMMON TO ALL FORMS.
CC -1- THIS PROTEIN SEEMS TO BIND TWO MOLES OF CALCIUM.
CC -1- SIMILARITY: TO OTHER EF-HAND CALCIUM BINDING PROTEINS.
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CC -1- SIMILARITY: BELONGS TO PEPTIDASE FAMILY C2; ALSO KNOWN AS THE
CC CALPAIN FAMILY OF THIOL PROTEASES.
DR EMBL: M23254; G511637; -.
DR EMBL: J04700; G463086; -.
DR PIR: A31218; A31218.
DR MIM: 114230; -.
DR PROSITE: PS00018; EF_HAND. 2.
DR PROSITE: PS00139; THIOL_PROTEASE_CYS; 1.
DR PROSITE: PS00639; THIOL_PROTEASE_HIS; FALSE_NEG.
DR PROSITE: PS00640; THIOL_PROTEASE_ASN; FALSE_NEG.
KW HYDROLASE; THIOL PROTEASE; CALCIUM-BINDING; MULTIGENE FAMILY.
FT DOMAIN 1 74
FT DOMAIN 75 327
FT DOMAIN 328 533
FT DOMAIN 534 700
FT ACT_SITE 105 105
FT ACT_SITE 262 262
FT ACT_SITE 286 286
FT CA_BIND 585 596
FT CA_BIND 615 626
FT DOMAIN 650 661
FT DOMAIN 680 691
FT CONFLICT 68 68
FT CONFLICT 73 74
SQ SEQUENCE 700 AA; 80006 MW; 97158E66 CRC32;

Query Match 100.0%; Score 44; DB 1; Length 700;
Best Local Similarity 100.0%; Pred. No. 3.26+00;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 80 EICADP 85
OY 1 EICADP 6
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RESULT 13
ID MCPB_BOVIN STANDARD: PRT; 74 AA.
AC P80343;
DT 01-FEB-1995 (REL. 31, CREATED)
DT 01-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1B (MCP-1B) (FRAGMENT).
OS BOS TAURUS (BOVINE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; ARTIODACTYLIA.
RN [1]
RP SEQUENCE.
RX TISSUE-KIDNEY;
RX MEDLINE: 95034774.
RA PROOST P., WOYTS A., LENAERTS J.-P., VAN DAMME J.;
RL BIOCHEMISTRY 33:13406-13412(1994).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC NEUTROPHILS. AUGMENTS MONOCYTE ANTI-TUMOR ACTIVITY. ALSO INDUCES
CC THE RELEASE OF GELATINASE B. THIS PROTEIN CAN BIND HEPARIN.
CC -1- PIN: THE N-TERMINAL IS BLOCKED.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; HEPARIN-BINDING.
FT NON_TER 1 1
FT DISULFD 9 34
FT FT 10 50
FT FT 10 50
SQ SEQUENCE 74 AA; 8360 MW; 66172F08 CRC32;
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Query Match 97.7%; Score 43; DB 1; Length 74;
Best Local Similarity 83.3%; Pred. No. 5.42+00;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 48 EICADP 53
OY 1 EICADP 6
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SCY8 OR SCY10 OR MCP2.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A. AND VARIANT GLN-69.
 RX MEDLINE: 97237052.
 RA VAN COILLIE E., FITEN P., NOMIYAMA H., SAKAKI Y., MIURA R., YOSHIE O.,
 VAN DAMME J., OPDENAKKER G.;
 RL GENOMICS 40:323-331(1997).
 RN [2]
 RP SEQUENCE FROM N.A. AND VARIANT GLN-69.
 RC TISSUE-BONE MARROW;
 RX MEDLINE: 97224420.
 RA VAN COILLIE E., FROYEN F., NOMIYAMA H., MIURA R., FITEN P.,
 VAN ALST I., VAN DAMME J., OPDENAKKER G.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 231:726-730(1997).
 RN [3]
 RP SEQUENCE OF 23-99 FROM N.A.
 RX MEDLINE: 91207938.
 RA CHANG H.C., HSU F., FREEMAN G.J., GRIFFIN J.D., REINHERZ E.L.;
 RL INT. IMMUNOL. 1:388-399(1989).
 RN [4]
 RP SEQUENCE OF 26-99.
 RC TISSUE-OSTEOSARCOMA;
 RX MEDLINE: 92308855.
 RA VAN DAMME J., PROOST P., LENAERTS J.-P., OPDENAKKER G.;
 RL J. EXP. MED. 176:59-65(1992).
 RN [5]
 RP SUBUNIT.
 RX MEDLINE: 97053697.
 RA KIM K.-S., RAJARATHNAM K., CLARK-LEWIS I., SYRES B.D.;
 RL FEBS LETT. 395:277-282(1996).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, LYMPHOCYTES,
 BASOPHILS AND EOSINOPHILS. MAY PLAY A ROLE IN NEOPLASIA AND
 INFLAMMATORY HOST RESPONSES. THIS PROTEIN CAN BIND HEPARIN.
 CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM.
 CC -1- TISSUE SPECIFICITY: HIGHEST EXPRESSION FOUND IN THE SMALL
 INTESTINE AND PERIPHERAL BLOOD CELLS. INTERMEDIATE LEVELS SEEN IN
 THE HEART, PLACENTA, LUNG, SKELETAL MUSCLE, THYMUS, COLON, OVARY,
 SPINAL CORD AND PANCREAS. LOW LEVELS SEEN IN THE BRAIN, LIVER,
 SPLEEN AND PROSTATE.
 CC -1- INDUCTION: BY INTERFERON GAMMA, MITOGENS AND INTERLEUKIN-1.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 C-C) (CHEMOKINE CC).
 DR EMBL: X99886; E279930; ALT_INIT.
 DR EMBL: Y10802; E294088; -.
 DR HSSP: P13500; LMCA.
 DR MIM: 602283; -.
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOTAXIS; SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE;
 KM POLYMORPHISM.
 FT SIGNAL 1 23 PROBABLE.
 FT CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 2.
 FT MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID.
 FT DISULFID 34 59 BY SIMILARITY.
 FT DISULFID 35 75 BY SIMILARITY.
 FT VARIANT 69 69 K -> O.
 SO SEQUENCE 99 AA; 11246 MW; 5DDDS5C20 CRC32;

Query Match 95.5%; Score 42; DB 1; Length 99;
 Best Local Similarity 83.3%; Pred. No. 8.95e+00;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 73 EVCADP 78
 1 EICADP 6

RESULT 17
 ID MCP2_PIG STANDARD; PRT; 99 AA.
 AC P49873;
 DT 01-OCT-1996 (REL. 34, CREATED)

DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
 DE CHEMOTACTICANT PROTEIN 2).
 GN SCY8 OR MCP2.
 OS SCY8 OR MCP2.
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; ARTIODACTYLA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 95091716.
 RA HOSANG K.K., KNOKE I.I., KLADINY J.J., WEMPE F.F., WUTKE W.W.,
 SCHEIT K.K.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 205:148-153(1994).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES. THIS PROTEIN
 CAN BIND HEPARIN.
 CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 C-C) (CHEMOKINE CC).
 DR EMBL: Z48480; G683719; -.
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOTAXIS; SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE.
 FT SIGNAL 1 23 BY SIMILARITY.
 FT CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 2.
 FT MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID (BY
 FT DISULFID 34 59 SIMILARITY).
 FT DISULFID 35 75 BY SIMILARITY.
 SO SEQUENCE 99 AA; 10903 MW; B7620BCF CRC32;

Query Match 95.5%; Score 42; DB 1; Length 99;
 Best Local Similarity 83.3%; Pred. No. 8.95e+00;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 73 EVCADP 78
 1 EICADP 6

RESULT 18
 ID MCP1_CAYPO STANDARD; PRT; 120 AA.
 AC Q08782;
 DT 01-NOV-1995 (REL. 32, CREATED)
 DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE
 DE CHEMOTACTICANT PROTEIN-1).
 GN SCY2 OR MCP1.
 OS CAVIA PORCELLUS (GUINEA PIG).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-2; TISSUE-SPLEEN;
 RX MEDLINE: 93267104.
 RA YOSHIMURA T.;
 RL J. IMMUNOL. 150:5025-5032(1993).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
 NEUTROPHILS.
 CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 C-C) (CHEMOKINE CC).
 DR EMBL: L04985; G349821; -.
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
 FT SIGNAL 1 23 BY SIMILARITY.
 FT CHAIN 24 120 MONOCYTE CHEMOTACTIC PROTEIN 1.
 FT MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID (BY
 FT DISULFID 33 57 SIMILARITY).
 FT DISULFID 34 73 BY SIMILARITY.
 FT CARBOHYD 97 97 POTENTIAL.
 SO SEQUENCE 120 AA; 13741 MW; 22FAD257 CRC32;

Query Match 95.5%; Score 42; DB 1; Length 120;
 Best Local Similarity 83.3%; Pred. No. 8.95e+00;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

DB 71 EVCADP 76
 1:|||||
 1 EICADP 6

RESULT 19
 ID MCP1 MOUSE STANDARD; PRT: 148 AA.

AC P10148;
 DT 01-MAR-1989 (REL. 10, CREATED)
 DT 01-MAR-1989 (REL. 10, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (PLATELET-DERIVED GROWTH FACTOR-INDUCIBLE PROTEIN JE).
 GN SCY2 OR MCP1 OR JE.
 OS MUS MUSCULUS (MOUSE).
 OC EURARCTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUTHERIA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 89093129.
 RA KAWAHARA R.S., DEUEL T.F.;
 RL J. BIOL. CHEM. 264:579-682(1989).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 88234501.
 RA ROLLINS B.J., MORRISON E.D., STILES C.D.;
 RL PROC. NATL. ACAD. SCI. U.S.A. 85:3738-3742(1988).
 RN [3]
 RP SEQUENCE OF 26-42.
 RX MEDLINE: 91293127.
 RA VAN DAMME J., DECOCK B., BERTINI R., CONINGS R., LENAERTS J.-P.,
 RA PUT W., OPDENAKKER G., MANTOVANI A.;
 RL EUR. J. BIOCHEM. 199:223-229(1991).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT NEUTROPHILS.
 CC -1- SUBUNIT: MONOMER OR HOMODIMER, IN EQUILIBRIUM (BY SIMILARITY).
 CC -1- INDUCTION: BY PLATELET-DERIVED GROWTH FACTOR.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).

DR EMBL: J04467; G387169; -;
 DR EMBL: M19681; G387168; -;
 DR PIR: A30209; A30209.
 DR PIR: A30861; A30861.
 DR PIR: S16226; S16226.
 DR HSSP: P13500; IMCA.
 DR MGI: 98259; SCY2.
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 DR CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
 FT SIGNAL 1 23 BY SIMILARITY.
 FT CHAIN 24 148 MONOCYTE CHEMOTACTIC PROTEIN 1.
 FT MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID (BY SIMILARITY).
 FT DISULFID 34 59 BY SIMILARITY.
 FT DISULFID 35 75 BY SIMILARITY.
 FT CARBOHYD 126 126 POTENTIAL.
 SQ SEQUENCE 148 AA; 16326 MW; B7572BBC CRC32;

Query Match 95.5%; Score 42; DB 1; Length 148;
 Best Local Similarity 83.3%; Pred. No. 8.95e+00;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

DB 73 EVCADP 78
 1:|||||
 1 EICADP 6

RESULT 20
 ID MIP4_HUMAN STANDARD; PRT: 89 AA.

AC P55774;
 DT 01-NOV-1997 (REL. 35, CREATED)
 DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MACROPHAGE INFLAMMATORY PROTEIN 4 PRECURSOR (MIP-4) (PULMONARY AND DE ACTIVATION-REGULATED CHEMOKINE) (CC CHEMOKINE PARC) (ALTERNATIVE DE ACTIVATED MACROPHAGE ASSOCIATED CC CHEMOKINE 1) (AMAC-1).
 GN SCY18 OR MIP4.
 OS HOMO SAPIENS (HUMAN).
 OC EURARCTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUTHERIA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA LI H., RUBEN S.;
 RL PATENT NUMBER US5504003.
 RN [2]
 RP SEQUENCE FROM N.A., AND PARTIAL SEQUENCE.
 RC TISSUE-AORTA, AND LUNG;
 RX MEDLINE: 97376836.
 RA HIESHIMA K., IMAI T., BABA M., SHODAI K., ISHIZUKA K.,
 RA NARAGAWA T., TSURUTA J., TAKEYA M., SAKAKI Y., TAKATSUKI K.,
 RA MIURA R., OPDENAKKER G., VAN DAMME J., YOSHIE O., NOMIYAMA H.;
 RL J. IMMUNOL. 159:1140-1149(1997).
 RN [3]
 RP SEQUENCE FROM N.A.
 RA KOEHLER V., MUELLER C., POLITZ O., HAKTY N., ORFANOS C.E., GOERDT S.;
 RL SUBMITTED (AUG-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [4]
 RP DISCUSSION OF SEQUENCE.
 RX MEDLINE: 97275308.

RA WELLS T.N.C., PETTSCH M.C.;
 RL J. LEUKOC. BIOL. 61:345-350(1997).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS LYMPHOCYTES BUT NOT MONOCYTES OR GRANULOCYTES. MAY BE INVOLVED IN B CELL MIGRATION INTO B CELL FOLLICLES IN LYMPH NODES.
 CC -1- TISSUE SPECIFICITY: EXPRESSED AT HIGH LEVELS IN THE LUNG. A LOWER LEVEL EXPRESSION IS SEEN IN LYMPHOID TISSUES SUCH AS LYMPH NODES, THYMUS AND APPENDIX.
 CC -1- INDUCTION: BY LIPOLYSACCHARIDE (LPS).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
 DR EMBL: AB000221; D1022520; -;
 DR EMBL: Y13710; E321838; -;
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 DR CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
 FT SIGNAL 1 20
 FT CHAIN 21 89 MACROPHAGE INFLAMMATORY PROTEIN 4.
 FT DISULFID 30 54 BY SIMILARITY.
 FT DISULFID 31 70 BY SIMILARITY.
 SQ SEQUENCE 89 AA; 9849 MW; 052AA3DC CRC32;

Query Match 93.2%; Score 41; DB 1; Length 89;
 Best Local Similarity 83.3%; Pred. No. 1.46e+01;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

DB 68 QICADP 73
 1:|||||
 1 EICADP 6

RESULT 21
 ID MIP4_RAT STANDARD; PRT: 92 AA.
 AC P50230;
 DT 01-OCT-1996 (REL. 34, CREATED)
 DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
 DT 01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
 DE MACROPHAGE INFLAMMATORY PROTEIN 1-BETA PRECURSOR (MIP-1-BETA).
 GN SCY44 OR MIP1B.
 OS RATTUS NORVEGICUS (RAT).
 OC EURARCTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUTHERIA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.

RC	STRAIN=LONG EVANS; TISSUE=LUNG;
RL	JONES M.L., SHANLEY T.P., SCHMAL H., FRIEDL H.P., WARD P.A.;
RH	SUBMITTED (FEB-1994) TO EMBL/GENBANK/DBJ DATA BANKS.
CC	-I- FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES.
CC	-I- SUBUNIT: HOMODIMER (BY SIMILARITY).
CC	-I- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
DR	EMBL: U06434; G459148; -
DR	PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW	CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
FT	SIGNAL
FT	CHAIN
FT	DISEULFD
FT	DISEULFD
SO	SEQUENCE
Db	72 QIACP 77
Qy	1 EICADP 6
RESULT	22
ID	MIAA-RAT
AC	P50229;
DT	01-OCT-1996 (REL. 34, CREATED)
DT	01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT	01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
DE	MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA PRECURSOR (MIP-1-ALPHA). SCY3 OR MIPLA.
GN	RATTUS NORVEGICUS (RAT).
OS	EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA; EUHERIA; RODENTIA.
OC	[1]
RN	SEQUENCE FROM N.A.
RP	STRAIN=CD-1; TISSUE=LUNG;
RC	MEDLINE; 95298037.
RX	SHI M.M., GODLESKI J.J., PAULAKIS J.D.;
RA	BIOCHEM. BIOPHYS. RES. COMMUN. 211:289-295(1995).
RL	[2]
RN	SEQUENCE FROM N.A.
RP	STRAIN=LONG EVANS; TISSUE=LUNG;
RC	MEDLINE; 95238980.
RX	SHANLEY T.P., SCHMAL H., FRIEDL H.P., JONES M.L., WARD P.A.;
RA	J. IMMUNOL. 154:4793-4802(1995).
RL	[3]
RN	SEQUENCE OF 24-57.
RP	STRAIN=WISTAR;
RC	MEDLINE; 96183056.
RX	NAGAWAMA H., SHIOTA S., TAKANO K., SHIBATA F., KATO H.;
RA	BIOCHEM. BIOPHYS. RES. COMMUN. 220:945-948(1996).
RL	[4]
RN	FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES. HAS CHEMOTACTIC ACTIVITY FOR MONOCYTES, NEUTROPHILS, EOSINOPIHLS, BASOPIHLS, AND LYMPHOCTES. REQUIRED FOR LUNG TNF-ALPHA PRODUCTION, NEUTROPHIL RECRUITMENT AND SUBSEQUENT LUNG INJURY AND MAY FUNCTION AS AN AUTOORINE MEDIATOR FOR THE MACROPHAGE PRODUCTION OF TNF-ALPHA WHICH IN TURN UP-REGULATES VASCULAR ADHESION MOLECULES REQUIRED FOR NEUTROPHIL INFLOX. THIS PROTEIN BINDS HEPARIN.
CC	-I- INDUCTION: BY LIPOPOLYSACCCHARIDE (LPS).
CC	-I- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
DR	EMBL: U22414; G790633; -
DR	EMBL: U06435; G459150; -
DR	PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW	CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL; HEPARIN-BINDING.
FT	SIGNAL
FT	CHAIN
FT	DISEULFD
FT	DISEULFD
SO	SEQUENCE
Db	92 AA; 10234 MW; 3C82B006 CRC32;
Qy	1 EICADP 6
RESULT	22
ID	MIAA-RAT
AC	P50229;
DT	01-OCT-1996 (REL. 34, CREATED)
DT	01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT	01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
DE	MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA PRECURSOR (MIP-1-ALPHA). SCY3 OR MIPLA.
GN	RATTUS NORVEGICUS (RAT).
OS	EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA; EUHERIA; RODENTIA.
OC	[1]
RN	SEQUENCE FROM N.A.
RP	STRAIN=CD-1; TISSUE=LUNG;
RC	MEDLINE; 95298037.
RX	SHI M.M., GODLESKI J.J., PAULAKIS J.D.;
RA	BIOCHEM. BIOPHYS. RES. COMMUN. 211:289-295(1995).
RL	[2]
RN	SEQUENCE FROM N.A.
RP	STRAIN=LONG EVANS; TISSUE=LUNG;
RC	MEDLINE; 95238980.
RX	SHANLEY T.P., SCHMAL H., FRIEDL H.P., JONES M.L., WARD P.A.;
RA	J. IMMUNOL. 154:4793-4802(1995).
RL	[3]
RN	SEQUENCE OF 24-57.
RP	STRAIN=WISTAR;
RC	MEDLINE; 96183056.
RX	NAGAWAMA H., SHIOTA S., TAKANO K., SHIBATA F., KATO H.;
RA	BIOCHEM. BIOPHYS. RES. COMMUN. 220:945-948(1996).
RL	[4]
RN	FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES. HAS CHEMOTACTIC ACTIVITY FOR MONOCYTES, NEUTROPHILS, EOSINOPIHLS, BASOPIHLS, AND LYMPHOCTES. REQUIRED FOR LUNG TNF-ALPHA PRODUCTION, NEUTROPHIL RECRUITMENT AND SUBSEQUENT LUNG INJURY AND MAY FUNCTION AS AN AUTOORINE MEDIATOR FOR THE MACROPHAGE PRODUCTION OF TNF-ALPHA WHICH IN TURN UP-REGULATES VASCULAR ADHESION MOLECULES REQUIRED FOR NEUTROPHIL INFLOX. THIS PROTEIN BINDS HEPARIN.
CC	-I- INDUCTION: BY LIPOPOLYSACCCHARIDE (LPS).
CC	-I- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
DR	EMBL: U22414; G790633; -
DR	EMBL: U06435; G459150; -
DR	PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW	CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL; HEPARIN-BINDING.
FT	SIGNAL
FT	CHAIN
FT	DISEULFD
FT	DISEULFD
SO	SEQUENCE
Db	92 AA; 10234 MW; 3C82B006 CRC32;
Qy	1 EICADP 6
RESULT	22
ID	MIAA-RAT
AC	P50229;
DT	01-OCT-1996 (REL. 34, CREATED)
DT	01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT	01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
DE	MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA PRECURSOR (MIP-1-ALPHA). SCY3 OR MIPLA.
GN	RATTUS NORVEGICUS (RAT).
OS	EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA; EUHERIA; RODENTIA.
OC	[1]
RN	SEQUENCE FROM N.A.
RP	STRAIN=CD-1; TISSUE=LUNG;
RC	MEDLINE; 95298037.
RX	SHI M.M., GODLESKI J.J., PAULAKIS J.D.;
RA	BIOCHEM. BIOPHYS. RES. COMMUN. 211:289-295(1995).
RL	[2]
RN	SEQUENCE FROM N.A.
RP	STRAIN=LONG EVANS; TISSUE=LUNG;
RC	MEDLINE; 95238980.
RX	SHANLEY T.P., SCHMAL H., FRIEDL H.P., JONES M.L., WARD P.A.;
RA	J. IMMUNOL. 154:4793-4802(1995).
RL	[3]
RN	SEQUENCE OF 24-57.
RP	STRAIN=WISTAR;
RC	MEDLINE; 96183056.
RX	NAGAWAMA H., SHIOTA S., TAKANO K., SHIBATA F., KATO H.;
RA	BIOCHEM. BIOPHYS. RES. COMMUN. 220:945-948(1996).
RL	[4]
RN	FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES. HAS CHEMOTACTIC ACTIVITY FOR MONOCYTES, NEUTROPHILS, EOSINOPIHLS, BASOPIHLS, AND LYMPHOCTES. REQUIRED FOR LUNG TNF-ALPHA PRODUCTION, NEUTROPHIL RECRUITMENT AND SUBSEQUENT LUNG INJURY AND MAY FUNCTION AS AN AUTOORINE MEDIATOR FOR THE MACROPHAGE PRODUCTION OF TNF-ALPHA

FT	CONFLICT	5	5	A -> T (IN REF. 2).
FT	CONFLICT	57	57	C -> W (IN REF. 2 AND 3).
SO	SEQUENCE	92 AA:	10335 MW;	F48CF89F CRC32;
Query Match				
Best Local Similarity		83.3%;	Score 41;	DB 1; Length 92;
Matches		5; Conservative	1;	Mismatches 0; Indels 0; Gaps 0;
Db	71 QICADP 76			
QY	1 EICADP 6			
RESULT 23				
ID	MCP2_BOVIN	STANDARD:	PRT;	99 AA.
AC	Q09141;			
DT	01-NOV-1995 (REL. 32, CREATED)			
DT	01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)			
DT	15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)			
DE	MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE CHEMOATTRACTANT PROTEIN 2).			
GN	SCY8 OR MCP2.			
OS	BOS TAURUS (BOVINE).			
OC	EUFARIOTA, METAFOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;			
OC	EUTHERIA; ARTIODACTYLA.			
RN	(1)			
RP	SEQUENCE FROM N.A.			
RX	MEDLINE: 94114084.			
RA	WEMPE F., HANES J., SCHEIT K.H.;			
RL	DNA CELL. BIOL. 13:1-8(1994).			
CC	-1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES. THIS PROTEIN CAN BIND HEPARIN.			
CC	-1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).			
CC	-1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).			
CC	EMBL; S67954; E118856; -.			
DR	EMBL; S67956; G54997; -.			
DR	PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.			
DR	CYTOKINE; CHEMOTAXIS; SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE.			
KW	CYTOKINE			
FT	SIGNAL	1	23	BY SIMILARITY.
FT	CHAIN	24	99	MONOCYTE CHEMOTACTIC PROTEIN 2.
FT	MOD_RES	24	24	PIRROLIDONE CARBOXYLIC ACID (BY SIMILARITY).
FT	DISULFID	34	59	BY SIMILARITY.
FT	DISULFID	35	75	BY SIMILARITY.
FT	SEQUENCE	99 AA;	10900 MW;	99A2CD26 CRC32;
SO	Query Match	93.2%;	Score 41;	DB 1; Length 99;
	Best Local Similarity	66.7%;	Pred. No. 1.46e+01;	
	Matches	4; Conservative	2;	Mismatches 0; Indels 0; Gaps 0;
Db	73 DVCADP 78			
QY	1 EICADP 6			
RESULT 24				
ID	SYA_ARCFU	STANDARD:	PRT;	906 AA.
AC	O28029;			
DT	15-JUL-1998 (REL. 36, CREATED)			
DT	15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)			
DT	15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)			
DE	ALANYL-TRNA SYNTHETASE (EC 6.1.1.7) (ALANINE--TRNA LIGASE) (ALARS).			
GN	ALAS OR AF225.			
OS	ARCHAEoglobus fulgidus.			
OC	ARCHAEOBACTERIA; EURYARCHAEOTA; ARCHAEoglobales; ARCHAEoglobaceae.			
RN	(1)			
RP	SEQUENCE FROM N.A.			
RC	STRAIN-VC-16 / DSM 4304 / ATCC 49558;			
RA	MEDLINE: 98049343.			
RA	KLEIN H.-P., CLAYTON R.A., TOMB J.-F., WHITE O., NELSON K.E.,			
RA	KETCHUM K.A., DODSON R.J., GINN M., HICKEY E.K., PETERSON J.D.,			
RA	RICHARDSON D.L., KERLAVAGE A.R., GRAHAM D.E., KYRPIDES N.C.,			

RA FLEISCHMANN R.D., QUACKENBUSH J., LEE N.H., SUTTON G.G., GILL S.,
 RA KIRKNESS E.F., DOUGHERTY B.A., MCKENNEY K., ADAMS M.D., LOFTUS B.,
 RA PETERSON S., REICH C.T., MCNEIL L.R., BADGER J.H., GLODER A., ZHOU L.,
 RA OVERBERG R., GOCAYNE J.D., WEIDMAN J.F., McDONALD L., UTTERBACK T.,
 RA COTTON M.D., SPIRIGS T., ARTIACH P., KAINE B.P., SYKES S.M.,
 RA SADOW P.W., D'ANDREA K.P., BOWMAN C., FUJII C., GARLAND S.A.,
 RA MASON T.M., OLSEN G.J., FRASER C.M., SMITH H.O., WOESSE C.R.,
 RA VENTER J.C.,
 RL NATURE 390:364-370(1997).
 CC -1- CATALYTIC ACTIVITY: ATP + L-ASPARTATE + TRNA(ASP) = AMP +
 CC PYROPHOSPHATE + L-ASPARTYL-TRNA(ASP).
 CC -1- SUBCELLULAR LOCATION: CYTOPLASMIC.
 CC -1- SIMILARITY: BELONGS TO CLASS-II AMINOACYL-TRNA SYNTHETASE FAMILY.
 DR EMBL: AEO0949; G2648270; -.
 DR TRIG: AF2255; -.
 DR PROSITE: PS00179; AA-TRNA_LIGASE_II_1; FALSE_NEG.
 DR PROSITE: PS00339; AA-TRNA_LIGASE_II_2; FALSE_NEG.
 KM AMINOCACYL-TRNA SYNTHETASE; PROTEIN BIOSYNTHESIS; LIGASE; ATP-BINDING.
 SQ SEQUENCE 906 AA; 102536 MW; 54E57BAC CRC32;

Query Match 93.2%; Score 41; DB 1; Length 906;
 Best Local Similarity 83.3%; Pred. No. 1.46e+01;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 38 EICGDP 43
 |||||
 QY 1 EICADP 6

RESULT 25
 ID FIXB_AZOVI STANDARD; PRT; 360 AA.
 AC P53574;
 DT 01-OCT-1996 (REL. 34, CREATED)
 DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
 DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
 DE FIXB PROTEIN.
 DE FIXB PROTEIN.
 GN FIXB.
 OS AZOTOBACTER VINELANDII.
 OC PROKARYOTA; GRACILICUTES; SCOTOBACTERIA; AEROBIC RODS AND COCCI;
 OC ACETOBACTERIACEAE.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-ATCC 478;
 RA WIENTJENS R., VAN DONGEN W., HAAKER H.;
 RL SUBMITTED (JUL-1994) TO EMBL/GENBANK/DBJ DATA BANKS.
 CC -1- FUNCTION: MAY PLAY A ROLE IN A REDOX PROCESS INVOLVED IN NITROGEN
 CC FIXATION.
 CC -1- SUBUNIT: FIXA AND FIXB FORM A HETERODIMER (PROBABLE).
 CC -1- SIMILARITY: BELONGS TO THE ETF ALPHA-SUBUNIT / FIXB FAMILY.
 DR EMBL: X65515; G510486; -.
 DR PROSITE: PS00696; ETF_ALPHA; 1.
 KM ELECTRON TRANSPORT; FAD; NITROGEN FIXATION.
 RL NE_BIND 293 321 FAD (ADP PART) (POTENTIAL).
 SQ SEQUENCE 360 AA; 39030 MW; 044091DA CRC32;

Query Match 90.9%; Score 40; DB 1; Length 360;
 Best Local Similarity 66.7%; Pred. No. 2.38e+01;
 Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 72 EICGEP 77
 |||||
 QY 1 EICADP 6

RESULT 26
 ID MIB_CHICK STANDARD; PRT; 90 AA.
 AC 090826;
 DT 01-NOV-1997 (REL. 35, CREATED)
 DT 15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MACROPHAGE INFLAMMATORY PROTEIN 1-BETA HOMOLOG PRECURSOR.
 OS GALLUS GALLUS (CHICKEN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; AVES; NEOGNATHA;

OC GALLIFORMES.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-BONE MARROW;
 RX MEDLINE: 95369710.
 RA PETRENKO O., ISCHENKO I., ENRIETTO P.J.;
 RL GENE 160:305-306(1995).
 RN [2]
 RP SEQUENCE OF 14-90 FROM N.A.
 RA PETRENKO O., ENRIETTO P.J.;
 RL SUBMITTED (JUL-1994) TO EMBL/GENBANK/DBJ DATA BANKS.
 CC -1- FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES
 CC (BY SIMILARITY).
 CC -1- SUBUNIT: HOMODIMER (BY SIMILARITY).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC -C) (CHEMOKINE CC).
 DR EMBL: L3453; G509596; -.
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 KM CYTOKINE; CHEMOTAXIS; SIGNAL.
 FT SIGNAL 1 21 BY SIMILARITY.
 FT CHAIN 1 21
 FT DISULFID 32 56 MACROPHAGE INFLAMMATORY PROTEIN 1-BETA.
 FT DISULFID 33 72 BY SIMILARITY.
 FT CONFLICT 87 87 L->M (IN REF. 2).
 SQ SEQUENCE 90 AA; 9969 MW; B5637084 CRC32;

Query Match 88.6%; Score 39; DB 1; Length 90;
 Best Local Similarity 66.7%; Pred. No. 3.82e+01;
 Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 70 EYCANP 75
 |||||
 QY 1 EICADP 6

RESULT 27
 ID MIB_HUMAN STANDARD; PRT; 92 AA.
 AC P13236; P22617; Q13704;
 DT 01-JAN-1990 (REL. 13, CREATED)
 DT 01-JAN-1990 (REL. 13, LAST SEQUENCE UPDATE)
 DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
 DE MACROPHAGE INFLAMMATORY PROTEIN 1-BETA PRECURSOR (MIP-1-BETA) (T-CELL
 DE ACTIVATION PROTEIN 2) (ACT-2) (PAT 744) (H400) (SIS GAMMA) (LYMPHOCYTE
 DE ACTIVATION GENE-1 PROTEIN) (LAG-1) (HC21) (SMALL INDUCIBLE CYTOKINE
 DE A4) (G-26 T LYMPHOCYTE-SECRETED PROTEIN).
 GN SCY4 OR MIP1B OR LAG1.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 89071164.
 RA LIPES M.A., NAROLITANO M., JEANG K.-T., CHANG N.T., LEONARD W.J.;
 RL PROC. NATL. ACADE. SCI. U.S.A. 85:9704-9708(1988).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 89140347.
 RA ZIPPEL P.F., BALKE J., IRVING S.G., KELLY K., SIEBENLIST U.;
 RL J. IMMUNOL. 142:1582-1590(1989).
 RN [3]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 89093958.
 RA BROWN K.D., ZURAWSKI S.M., MOSMANN T.R., ZURAWSKI G.;
 RL J. IMMUNOL. 142:679-687(1989).
 RN [4]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 91061800.
 RA BAIXERAS E., ROMAN-ROMAN S., JITSURAWA S., GENEVEE C., MECHICHE S.,
 RA VIEGAS-PEOUGNOT E., HERCEND T., TRIEBEL F.;
 RL MOL. IMMUNOL. 27:1091-1102(1990).
 RN [5]
 RP SEQUENCE FROM N.A.
 RC TISSUE-T-CELL;

RX MEDLINE: 89325421.
RA CHANG H.C., REINHERZ E.L.,
RL EUR. J. IMMUNOL. 19:1045-1051(1989).
RN [6]
RP SEQUENCE FROM N.A.
RX MEDLINE: 91373378.
RA NAPOLITANO M., MODI W.S., CEVARIO S.J., GNARRA J.R., SEUANEZ H.N.,
RL LEONARD W.J.,
RN J. BIOL. CHEM. 266:17531-17536(1991).
RP SEQUENCE OF 6-92 FROM N.A.
RX MEDLINE: 90038522.
RA MILLER M.D., HATA S., MAAL, MALEFYT R., KRANGEL M.S.,
RL J. IMMUNOL. 143:2907-2916(1989).
RN [8]
RP STRUCTURE BY NMR.
RX MEDLINE: 94182137.
RA LODI P.J., GARRETT D.S., KUSCENSKI J., TSANG M.L.S., WEATHERBEE J.A.,
RL LEONARD W.J., GROENBORN A.M., CLORE G.M.,
RN SCIENCE 263:1762-1767(1994).
CC -1- FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES.
CC -1- SUBUNIT: HOMODIMER.
CC -1- INDUCTION: BY MITOGENS.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
CC EMBL: M23502; G533213; -.
DR EMBL: M23516; G602453; -.
DR EMBL: J04130; G178018; -.
DR EMBL: X53683; G34218; -.
DR EMBL: X53682; E35870; ALT-SEQ.
DR EMBL: X16166; G32036; -.
DR EMBL: M69203; G1332376; -.
DR EMBL: M69201; G1332376; JOINED.
DR EMBL: M69202; G1332376; JOINED.
DR EMBL: M57503; G339727; -.
DR PIR: A31767; A31767.
DR PIR: B30574; B30574.
DR PIR: D30552; D30552.
DR PIR: JH0319; JH0319.
DR PIR: A37411; A37411.
DR PDB: 1HUM; 30-APR-94.
DR PDB: 1HUN; 30-APR-94.
DR MIM: 182284; -.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL; 3D-STRUCTURE.
FT SIGNAL 1 23
FT CHAIN 24 92
FT DISULFID 34 58
FT DISULFID 35 74
FT CONFLICT 6 6
FT CONFLICT 15 15
FT CONFLICT 20 20
FT CONFLICT 40 45
FT CONFLICT 56 56
FT CONFLICT 70 70
FT CONFLICT 80 80
FT STRAND 29 29
FT STRAND 33 33
FT STRAND 45 47
FT STRAND 50 53
FT STRAND 63 66
FT STRAND 72 75
FT TURN 77 78
FT HELIX 80 90
SQ SEQUENCE 92 AA; 10212 MW; F18E7AFD CRC32;

Query Match 88.6%; Score 39; DB 1; Length 92;
Best Local Similarity 66.7%; Pred. No. 3.82e+01;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 72 OVCADP 77
:::||||
QY 1 EICADP 6

RESULT 28
ID M1A_HUMAN STANDARD; PRT; 92 AA.
AC P10147;
DT 01-MAR-1989 (REL. 10, CREATED)
DT 01-MAR-1989 (REL. 10, LAST SEQUENCE UPDATE)
DT 01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
DE MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA PRECURSOR (MIP-1-ALPHA)
DE (TONSILLAR LYMPHOCYTE LD78 ALPHA PROTEIN) (GOS19-1 PROTEIN) (SIS-BETA)
DE (PAT 464.1) (SMALL INDUCIBLE CYTOKINE A3).
GN SCYA3 OR MIP1A
OS HOMO SAPIENS (HUMAN)
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; PRIMATES.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 86223879.
RA OBARU K., FUKUDA M., MAEDA S., SHIMADA K.,
RL J. BIOCHEM. 99:885-894(1986).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 89140347.
RA ZIPPEL P.F., BAILE J., IRVING S.G., KELLY K., SIEBENLIST U.,
RL J. IMMUNOL. 142:1582-1590(1989).
RN [3]
RP SEQUENCE FROM N.A.
RX MEDLINE: 91103879.
RA BLUM S., FORSDYKE R.E., FORSDYKE D.R.,
RL DNA CELL BIOL. 9:589-602(1990).
RN [4]
RP SEQUENCE FROM N.A.
RX MEDLINE: 90287155.
RA NAKAO M., NOMIYAMA H., SHIMADA K.,
RL MOL. CELL. BIOL. 10:3646-3658(1990).
CC -1- FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES.
CC -1- INDUCTION: BY TPA OR PHA (TPA = 12-O-TETRADECANOYL PHORBOL-13 ACETATE (TUMOR PROMOTER); PHA = PHYTOHEMAGGLUTININ (T-CELL MITOGEN)).
CC -1- SIMILARITY: LD78-ALPHA AND -BETA ARE VERY CLOSELY RELATED.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
CC EMBL: D00044; D1000469; -.
DR EMBL: M23452; G188559; -.
DR EMBL: M25315; G602453; -.
DR EMBL: X03754; G758089; -.
DR EMBL: X04018; G34297; ALT-SEQ.
DR EMBL: M23178; G182847; -.
DR EMBL: D90144; G219906; -.
DR PIR: A24198; A24198.
DR PIR: A30574; A30574.
DR HSSP: P13236; 1HUM.
DR MIM: 182283; -.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
FT SIGNAL 1 22
FT CHAIN 23 92
FT DISULFID 33 57
FT DISULFID 34 73
SQ SEQUENCE 92 AA; 10085 MW; C24DD919 CRC32;

Query Match 88.6%; Score 39; DB 1; Length 92;
Best Local Similarity 66.7%; Pred. No. 3.82e+01;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 71 OVCADP 76
:::||||
QY 1 EICADP 6

RESULT 29
ID M1IO_HUMAN STANDARD; PRT; 93 AA.
AC P16619;

DT 01-AUG-1990 (REL. 15, CREATED)
DT 01-AUG-1990 (REL. 15, LAST SEQUENCE UPDATE)
DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
DE TONSILLAR LYMPHOCYTE LD78 BETA PROTEIN PRECURSOR (GOS19-2 PROTEIN)
DE (PAT 464.2).
GN SCYA311 OR 464.2.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; PRIMATES.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=BLOOD;
RX MEDLINE; 90287102.
RA IRYING S.G., ZIEPEL P.F., BAILE J., MCBRIDE O.W., MORTON C.C.,
RA BUD P.R., STEBERLIS U., KELLY K.,
RL NUCLEIC ACIDS RES. 18:3261-3270(1990).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE; 91103879.
RA BLUM S., FORSDYKE R.E., FORSDYKE D.R.,
RL DNA CELL BIOL. 9:589-602(1990).
RN [3]
RP SEQUENCE FROM N.A.
RX MEDLINE; 90287155.
RA NAKAO M., NOMIYAMA H., SHIMADA K.,
RL MOL. CELL. BIOL. 10:3646-3658(1990).
CC -1- SIMILARITY: 464.1 AND 464.2 ARE VERY CLOSELY RELATED.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
DR EMBL; X52149; G296666; -.
DR EMBL; M24110; G182849; -.
DR EMBL; D90145; G219908; -.
DR PIR; B30908; B30908.
DR PIR; B30412; B30412.
DR PIR; B35673; B35673.
DR PIR; S10157; S10157.
DR HSSP; P13236; 1HUM.
DR MIM; 601395; -.
DR PROSITE; PS00472; SMALL CYTOKINES_CC; 1.
DR CYTOKINE; CHEMOTAXIS; SIGNAL.
KW SIGNAL.
FT CHAIN 1 23
FT DISULFID 24 93 LD78 BETA / GOS19-2 / 464.2.
FT DISULFID 34 58 BY SIMILARITY.
FT DISULFID 35 74 BY SIMILARITY.
SQ SEQUENCE 93 AA; 10161 MW; 21EDDB04 CRC32;
Query Match 88.6%; Score 39; DB 1; Length 93;
Best Local Similarity 66.7%; Pred. No. 3.82e+01;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
DB 72 OVCADP 77
QY 1 EICADP 6
RESULT 30
ID MCPA BOVIN STANDARD: PRT: 99 AA.
AC P28291.
DT 01-DEC-1992 (REL. 24, CREATED)
DT 01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
DT 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1A PRECURSOR (MCP-1A) (MCP-1) (ACIDIC
DE SEMINAL FLUID PROTEIN).
OS BOS TAURUS (BOVINE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; ARTIODACTYLIA.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=SEMINAL PLASMA;
RX MEDLINE; 92096117.
RA WEMPE F., HENSCHEN A., SCHEIT K.H.,
RL DNA CELL BIOL. 10:671-679(1991).
RN [2]

RP SEQUENCE FROM N.A.
RC TISSUE=SEMINAL PLASMA;
RX MEDLINE; 92181448.
RA WEMPE F., EINSPIANIER R., SCHEIT K.H.,
RL BIOCHEM. BIOPHYS. RES. COMMUN. 183:232-237(1992).
RN [3]
RP SEQUENCE FROM N.A.
RX MEDLINE; 94338337.
RA WEMPE F., KOHLMANN J.K., SCHEIT K.H.,
RL BIOCHEM. BIOPHYS. RES. COMMUN. 202:1272-1279(1994).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC NEUTROPHILS.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
DR EMBL; L32659; G624394; -.
DR EMBL; M84602; G163395; -.
DR PIR; A39296; A39296.
DR PIR; JC2336; JC2336.
DR HSSP; P13500; 1MCA.
DR PROSITE; PS00472; SMALL CYTOKINES_CC; 1.
DR CYTOKINE; CHEMOTAXIS; SIGNAL.
KW SIGNAL.
FT CHAIN 1 23
FT CHAIN 24 99 BY SIMILARITY.
FT MOD_RES 24 24 MONOCYTE CHEMOTACTIC PROTEIN 1A.
FT DISULFID 34 59 PYROLIDONE CARBOXYLIC ACID (BY
FT DISULFID 35 75 SIMILARITY).
SQ SEQUENCE 99 AA; 11114 MW; C8F5821D CRC32;
Query Match 88.6%; Score 39; DB 1; Length 99;
Best Local Similarity 83.3%; Pred. No. 3.82e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
DB 73 EICADP 78
QY 1 EICADP 6

Search completed: Thu Apr 1 07:28:41 1999
Job time : 11 secs.

94 36 81.8 1041 14 002442 GENOME POLYPROTEIN [CO
95 36 81.8 1436 14 067726 NON-STRUCTURAL PROTEIN
96 36 81.8 1763 5 017901 C10C5.6 PROTEIN.
97 36 81.8 2219 5 023388 ZK1067.2.
98 36 81.8 2258 14 093128 RNAI POLYPROTEIN.
99 36 81.8 2258 14 055459 RNAI POLYPROTEIN.
100 36 81.8 2911 5 093442 K08F8.6 PROTEIN.
2.98e+02
2.98e+02

ALIGNMENTS

RESULT 1
ID 000626 PRELIMINARY: PRT: 93 AA.
AC 000626:
DT 01-JUL-1997 (TREMBLERL. 04, CREATED)
DT 01-JUL-1997 (TREMBLERL. 04, LAST SEQUENCE UPDATE)
DE 01-NOV-1998 (TREMBLERL. 08, LAST ANNOTATION UPDATE)
DE MACROPHAGE-DERIVED CHEMOKINE PRECURSOR.
GN MDC OR A-152E5.1.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RA GODISKA R., CHANTRY D., RAPOFF C.J., SOZZANI S., ALLAVENA P.,
RA MANTOVANI A., GRAY P.W.;
RL J. EXP. MED. 185:0-0(0).
RN [2]
RP SEQUENCE FROM N.A.
RA CHANG M.S., MCNICH J., ELIAS III C., MANTHEY C.L., GROSSHANS D.,
RA MENG T., BOONE T., ANDREW D.P.;
RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [3]
RP SEQUENCE FROM N.A.
RA ADAMS M.D., LOFTUS B.J., ZHOU L., CROSBY M., FUHRMANN J., MASON T.M.,
RA BRANDON R., KIM U.J., KERLAVAGE A.R., VENTER J.C.;
RT "Homo sapiens Chromosome 16 BAC clone CIT987SK-A-152E5.";
RL SUBMITTED (JUN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; U83171; G1931581; -;
DR EMBL; U83339; G2062425; -;
DR EMBL; AC004382; G3252820; -;
DR PFAM; PF00048; 118; 1.
KW SIGNAL.
FT SIGNAL. 1 24 POTENTIAL.
FT CHAIN 25 93 MACROPHAGE-DERIVED CHEMOKINE.
SQ SEQUENCE 93 AA; 10580 MW; 65E63D2 CRC32;
Query Match 100.0%; Score 44; DB 4; Length 93;
Best Local Similarity 100.0%; Pred. No. 6.18e+00;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Db 74 EICADP 79
Qy 1 EICADP 6
RESULT 2
ID 054843 PRELIMINARY: PRT: 700 AA.
AC 054843:
DT 01-JUN-1998 (TREMBLERL. 06, CREATED)
DT 01-JUN-1998 (TREMBLERL. 06, LAST SEQUENCE UPDATE)
DE 01-NOV-1998 (TREMBLERL. 08, LAST ANNOTATION UPDATE)
DE CALPAIN 2 (80KDA M-CALPAIN SUBUNIT).
GN CAPN2 OR CALP80.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCUROGNATHI; MURIDAE; MURINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-NERVOUS SYSTEM;
RA GLASS J.D., NASH N.R., DRY I., CULVER D., WESSELLINGH S.;
RL SUBMITTED (JUL-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; AF015038; G2735951; -;

DR MGD; MG1:88264; CAPN2.
SQ SEQUENCE 700 AA; 79871 MW; 03C97160 CRC32;

Query Match 100.0%; Score 44; DB 11; Length 700;
Best Local Similarity 100.0%; Pred. No. 6.18e+00;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 80 EICADP 85
Qy 1 EICADP 6

RESULT 3
ID 088430 PRELIMINARY: PRT: 92 AA.
AC 088430:
DT 01-NOV-1998 (TREMBLERL. 08, CREATED)
DT 01-NOV-1998 (TREMBLERL. 08, LAST SEQUENCE UPDATE)
DE 01-NOV-1998 (TREMBLERL. 08, LAST ANNOTATION UPDATE)
DE CC CHEMOKINE ABCD-1.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
OC RODENTIA; SCUROGNATHI; MURIDAE; MURINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-LIVER;
RX MEDLINE; 98353531.
RA SCHANIEL C., PARDALI E., SALUSTO F., SPELETAS M., RUDEL C.,
RA SHIMIZU T., SEIDL T., ANDERSSON J., MELCHERS F., ROLINK A.G.,
RA SIDERAS P.;
RT "Activated murine B lymphocytes and dendritic cells produce a novel
RT CC chemokine which acts selectively on activated T cells.";
RL J. EXP. MED. 186:451-463(1998).
DR EMBL; AF052505; G3378116; -;
SQ SEQUENCE 92 AA; 10302 MW; BC7219A0 CRC32;

Query Match 97.7%; Score 43; DB 11; Length 92;
Best Local Similarity 83.3%; Pred. No. 1.03e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 74 DICADP 79
Qy 1 EICADP 6

RESULT 4
ID 027064 PRELIMINARY: PRT: 64 AA.
AC 027064:
DT 01-JAN-1998 (TREMBLERL. 05, CREATED)
DT 01-JAN-1998 (TREMBLERL. 05, LAST SEQUENCE UPDATE)
DE 01-AUG-1998 (TREMBLERL. 07, LAST ANNOTATION UPDATE)
DE HYPOTHETICAL 7.1 KD PROTEIN.
GN MH983.
OS METHANOBACTERIUM THERMOAUTOTROPHICUM.
OC ARCHAEA; EURYARCHAEOTA; METHANOBACTERIALES; METHANOBACTERIACEAE;
OC METHANOBACTERIUM.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-DELTA H;
RX MEDLINE; 98037514.
RA SMITH D.R., DOUCETTE-STAMM L.A., DELOUGHERY C., LEE H.-M., DUBOIS J.,
RA ALDREDE T., BASHIRZADEH R., BLARELY D., COOK R., GILBERT R.,
RA HARRISON D., HOANG L., KEAGLE P., LUMM W., POHIER B., QIU D.,
RA SPADAFORA R., VICARE R., WANG Y., WIERZBOWSKI J., GIBSON R., JIWANI N.,
RA CARUSO A., BUSH D., SAHER H., PATWELL D., PRAHARAR S., MCDUGALL S.,
RA SHIMER G., GOYAL A., PIETROVSKI S., CHURCH G.M., DANIELS C.J.,
RA MAO J.-I., RICE P., NOLLING J., REEVE J.N.;
RT "Complete genome sequence of Methanobacterium thermoautotrophicum
RT deltaH: functional analysis and comparative genomics.";
RL J. BACTERIOL. 179:7135-7155(1997).
DR EMBL; AE000872; G2622084; -;
KW HYPOTHETICAL PROTEIN.
SQ SEQUENCE 64 AA; 7098 MW; 9CF205BF CRC32;

Query Match 95.58; Score 42; DB 1; Length 64;
 Best Local Similarity 83.38; Pred. NO. 1.71e+01;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 16 EICADP 21
 ID 11111
 QY 1 EICADP 6

RESULT 5
 ID 098158 PRELIMINARY; PRT; 95 AA.
 AC 098158; 012569;
 DT 01-FEB-1997 (TREMBLREL. 02, CREATED)
 DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE ORF K6.
 OS KAPOSI'S SARCOMA-ASSOCIATED HERPESVIRUS.
 OC VIRUSES; DSDNA VIRUSES, NO RNA STAGE; HERPESVIRIDAE;
 OC GAMMAHERPESVIRINAE; RHADINOVIRUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA MEDLINE; 97094384.
 RA MOORE P.S., BASHOFF C., WEISS R.A., CHANG Y.;
 RT "Molecular mimicry of human cytokine and cytokine response pathway
 genes by KSHV.";
 RT SCIENCE 274:1739-1744(1996).
 RN [2]
 RP SEQUENCE FROM N.A.
 RA MEDLINE; 97121480.
 RA RUSSO J.J., BOHENKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
 RA PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
 RT "Nucleotide sequence of the Kaposi sarcoma-associated herpesvirus
 (HHV8).";
 RT PROC. NATL. ACAD. SCI. U.S.A. 93:14862-14867(1996).
 RN [3]
 RP SEQUENCE FROM N.A.
 RA RUSSO J.J., BOHENKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
 RA PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
 RT SUBMITTED (OCT-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [4]
 RP SEQUENCE FROM N.A.
 RA NICHOLAS J., RUVOLO V.R., BURNS W.H., SANDFORD G., WAN X., CIUFO D.,
 RA HENRICKSON S., GUO H.G., HAYWARD G.S., REITZ M.S.;
 RT SUBMITTED (NOV-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [5]
 RP SEQUENCE FROM N.A.
 RA RUSSO J.J., BOHENKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
 RA PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
 RT SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [6]
 RP SEQUENCE FROM N.A.
 RA MEDLINE; 97296220.
 RA NEIFEL F., ALBRECHT J.C., FLECKENSTEIN B.;
 RT "Cell-homologous genes in the Kaposi's sarcoma-associated rhadinovirus
 human herpesvirus 8: determinants of its pathogenicity";
 RT J. VIROL. 71:4187-4192(1997).
 RN [7]
 RP SEQUENCE FROM N.A.
 RA SUN R., LIN S.-F., MILLER G.;
 RT SUBMITTED (SEP-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [8]
 RP SEQUENCE FROM N.A.
 RA EMBL; 075698; G1718266; -;
 DR EMBL; 074585; G1658273; -;
 DR EMBL; 093872; G2246546; -;
 DR EMBL; 071366; G3551763; -;
 DR PFAM; PF00048; 118; 1.
 KW HYPOTHETICAL PROTEIN.
 SQ SEQUENCE 95 AA; 10485 MW; 5283348D CRC32;

Query Match 93.28; Score 41; DB 14; Length 95;
 Best Local Similarity 83.38; Pred. NO. 2.81e+01;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 74 QICADP 79

QY 1 EICADP 6

RESULT 6
 ID 081519 PRELIMINARY; PRT; 258 AA.
 AC 081519;
 DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE T24M8.10 PROTEIN.
 GN T24M8.10.
 OS ARABIDOPSIS THALIANA (MOUSE-EAR CRESS).
 OC EUKARYOTA; VIRIDITPLANTAE; CHAROPHYTA/EMBRYOPHYTA GROUP; EMBRYOPHYTA;
 OC EUDICOTYLEDONS; ROSIDAE; CAPPARIDAE; BRASSICACEAE; ARABIDOPSIS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA STRAIN-CV. COLUMBIA;
 RA WASHU;
 RT "The A. thaliana Genome Sequencing Project.";
 RT SUBMITTED (JUL-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [2]
 RP SEQUENCE FROM N.A.
 RA STRAIN-CV. COLUMBIA;
 RA LATREILLE P., ELIOTT G., LE T.;
 RT "The sequence of A. thaliana T24M8.";
 RT SUBMITTED (JUL-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [3]
 RP SEQUENCE FROM N.A.
 RA STRAIN-CV. COLUMBIA;
 RA WATERSTON R.;
 RT SUBMITTED (JUL-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [4]
 RP SEQUENCE FROM N.A.
 RA STRAIN-CV. COLUMBIA;
 RA WATERSTON R.;
 RT SUBMITTED (AUG-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL; AF077409; G3319366; -;
 SQ SEQUENCE 258 AA; 28721 MW; ADD6AF2E CRC32;

Query Match 93.28; Score 41; DB 10; Length 258;
 Best Local Similarity 83.38; Pred. NO. 2.81e+01;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 46 EICADP 51
 ID 11111
 QY 1 EICADP 6

RESULT 7
 ID 077102 PRELIMINARY; PRT; 383 AA.
 AC 077102;
 DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE PROPHENOL OXIDASE ACTIVATING ENZYME PRECURSOR.
 GN PP4E.
 OS MANUCA SEXTA (TOBACCO HAMMOTH) (TOBACCO HORNMOTH).
 OC EUKARYOTA; METAZOA; ARTIRODODA; TRACHEATA; HEXAPODA; INSECTA.
 OC PTERYGOTA; LEPIDOPTERA; SPHINGIODEA; SPHINGIDAE; SPHINGINAE; MANUCA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA MEDLINE; 98445352.
 RA JIANG H., WANG Y., RANOST M.R.;
 RT "pro-phenol oxidase activating proteinase from an insect, Manduca
 sexta: A bacteria inducible protein similar to Drosophila ester.";
 RT PROC. NATL. ACAD. SCI. U.S.A. 95:12220-12225(1998).
 DR EMBL; AF059728; G3746547; -;
 KW SIGNAL.
 FT SIGNAL.
 FT CHAIN
 SQ SEQUENCE 383 AA; 41849 MW; B667688E CRC32;

Query Match 93.2%; Score 41; DB 5; Length 383;
 Best Local Similarity 66.7%; Pred. No. 2.81e+01;
 Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 205 DVCADP 210
 :|:|:|
 1 EICADP 6

RESULT 8
 ID 054567 PRELIMINARY; PRT; 1009 AA.
 AC 054567;
 DT 01-JUN-1998 (TREMBLREL. 06, CREATED)
 DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE DOTO.
 GN DOTO OR ICMB.
 OS LEGIONELLA PNEUMOPHILA.
 OC BACTERIA; PROTEOBACTERIA; GAMMA SUBDIVISION; LEGIONELLACEAE;
 CC LEGIONELLA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 9811924.
 RA VOGEL J.P., ANDREWS H.L., WONG S.K., ISBERG R.R.;
 RT "Conjugative transfer by the virulence system of Legionella
 pneumoniae.";
 RL SCIENCE 279:873-876(1998).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 9814705.
 RA ANDREWS H.L., VOGEL J.P., ISBERG R.R.;
 RT "Identification of linked Legionella pneumophila genes essential for
 intracellular growth and evasion of the endocytic pathway.";
 RL INFECT. IMMUN. 66:950-958(1998).
 RN [3]
 RP SEQUENCE FROM N.A.
 RC STRAIN-PHILADELPHIA-1;
 RA PURCELL M., SHUMAN H.A.;
 RL SUBMITTED (FEB-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [4]
 RP SEQUENCE FROM N.A.
 RC STRAIN-PHILADELPHIA-1;
 RX MEDLINE; 98132649.
 RA SEGAL G., PURCELL M., SHUMAN H.A.;
 RT "Host cell killing and bacterial conjugation require overlapping sets
 of genes within a 22-kb region of the Legionella pneumophila genome.";
 RL PROC. NATL. ACAD. SCI. U.S.A. 95:1669-1674(1998).
 DR EMBL; AF026534; G2895283; -
 DR EMBL; Y14948; E1251898; -
 DR EMBL; Y15044; E1252195; -
 SQ SEQUENCE 1009 AA; 112135 MW; 513EBAFE CRC32;

Query Match 93.2%; Score 41; DB 2; Length 1009;
 Best Local Similarity 83.3%; Pred. No. 2.81e+01;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 411 EICADP 416
 :|:|:|
 1 EICADP 6

RESULT 9
 ID 032439 PRELIMINARY; PRT; 283 AA.
 AC 032439;
 DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
 DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE SERINE PROTEASE PRECURSOR.
 GN SAM-P20D.
 OS STREPTOMYCES ALBOGRISEOLUS.
 OC BACTERIA; FIRMICUTES; ACTINOBACTERIA; STREPTOMYCETES;
 CC STREPTOMYCETACEAE; STREPTOMYCES.

RP [1]
 SEQUENCE FROM N.A.
 RC STRAIN-S-3253;
 RX MEDLINE; 97321869.
 RA TAGUCHI S., OGAWA T., ENDO T., MOMOSE H.;
 RT "A gene homologous to the streptomycetes chymotrypsin-like protease
 (SAM-P20) gene is tandemly located.";
 RL BIOSCI. BIOTECHNOL. BIOCHEM. 61:909-913(1997).
 DR EMBL; D86743; D1022640; -
 DR PFAM; PF00089; trypsin; 1.
 KW SIGNAL; PROTEASE.
 FT SIGNAL 97
 FT CHAIN 97
 SQ SEQUENCE 283 AA; 28476 MW; 482039A6 CRC32;

Query Match 90.9%; Score 40; DB 2; Length 283;
 Best Local Similarity 50.0%; Pred. No. 4.59e+01;
 Matches 3; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Db 231 DVCADP 236
 :|:|:|
 1 EICADP 6

RESULT 10
 ID 045748 PRELIMINARY; PRT; 314 AA.
 AC 045748;
 DT 01-JUN-1998 (TREMBLREL. 06, CREATED)
 DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE T05D4.2.
 OS CAENORHABDITIS ELEPHANS.
 OC EUAROTHA; METAZOA; NEMATODA; SECERNENTEA; RHABDITIA; RHABDITIDA;
 CC RHABDITIA; RHABDITIDEA; RHABDITIDAE; PELODERMINEA; CAENORHABDITIS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA MCMURRAY A.;
 RL SUBMITTED (OCT-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 94150718.
 RA WILSON R., AINSCOUGH R., ANDERSON K., BAYNES C., BONEFIELD J.,
 RA BURTON J., CONNELL M., COSEY T., COOPER J., COULSON A., CRAXTON M.,
 RA DEAR S., DU Z., DURBIN R., FAVELLO A., FULTON L., GARDNER A., GREEN P.,
 RA HANKINS T., HILLIER L., JER M., JOHNSTON L., JONES M., KERSHAW J.,
 RA KIRSTEN J., LAISTER N., LATREILLE P., LIGHTNING J., LLOYD C.,
 RA MCMURRAY A., MORTIMORE B., O'CALLAGHAN M., PARSONS J., PERCY C.,
 RA RIFKEN L., ROOPRA A., SAUNDERS D., SHOWNKEEN R., SMALDON N., SMITH A.,
 RA SONNHAMMER E., STADEN R., SUISTON J., THIRRY-MING J., THOMAS K.,
 RA VANDIN M., VAUGHAN K., WATERSTON R., WATSON A., WEINSTOCK L.,
 RA WILKINSON-SPROAT J., WOHLDMAN P.;
 RT "2.2 Mb of contiguous nucleotide sequence from chromosome III of C.
 elegans.";
 RL NATURE 368:32-38(1994).
 DR EMBL; Z81115; E1247209; -
 SQ SEQUENCE 314 AA; 36587 MW; 0804815D CRC32;

Query Match 90.9%; Score 40; DB 5; Length 314;
 Best Local Similarity 50.0%; Pred. No. 4.59e+01;
 Matches 3; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Db 65 DICSEP 70
 :|:|:|
 1 EICADP 6

RESULT 11
 ID 054395 PRELIMINARY; PRT; 354 AA.
 AC 054395; 053544;
 DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
 DT 01-FEB-1997 (TREMBLREL. 02, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE CHYMOTRYPSIN-LIKE SERINE PROTEASE SALO PRECURSOR (EC 3.4.-.-).

OS STREPTOMYCES LIVIDANS.
OC BACTERIA; FIRMICUTES; ACTINOBACTERIA; STREPTOMYCETES.
OC STREPTOMYCETACEAE; STREPTOMYCETES.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-66;
RX MEDLINE: 95400022.
RA TAGUCHI S., ENDO T., NAOI Y., MOMOSE H.;
RT "Molecular cloning and sequence analysis of a gene encoding an extracellular serine protease from Streptomyces lividans 66.";
RL BIOSCI. BIOTECHNOL. BIOCHEM. 59:1386-1388(1995).
CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
DR EMBL: D50081: G1742917:
PFAM: PF00089; trypsin. 1.
KW SIGNAL; HYDROLASE; SERINE PROTEASE; ZYMOGEN; PROTEASE.
FT PROPEP ? 157 POTENTIAL.
FT SIGNAL 1 ? POTENTIAL.
FT CHAIN 158 354 CHYMOTRYPSIN-LIKE SERINE PROTEASE SALO.
SQ SEQUENCE 354 AA; 35439 MW; 0A21C044 CRC32;

Query Match 90.9%; Score 40; DB 2; Length 354;
Best Local Similarity 50.0%; Pred. No. 4.59e+01;
Matches 3; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Db 294 DVCAP 299
QY 1 EICADP 6
::||:|

RESULT 12
ID P71835 PRELIMINARY; PRT; 552 AA.
AC P71835;
DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE HYPOTHETICAL 60.9 KD PROTEIN CY369.26.
GN MTCY369.26.
OS MYCOBACTERIUM TUBERCULOSIS.
OC BACTERIA; FIRMICUTES; ACTINOBACTERIA; MYCOBACTERIA; MYCOBACTERIACEAE;
OC MYCOBACTERIUM.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-H37RV;
RA MCLEAN J., HARRIS D., BARRELL B.G., RAJANDREAM M.A.;
RL SUBMITTED (SEP-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
CC -1- SIMILARITY: TO PEPTIDASE FAMILY S9A; ALSO KNOWN AS THE PROLYL OLIGOPEPTIDASE FAMILY.
DR EMBL: 280226: E266572:
PFAM: PF00326; Prolyl_oligopep; 1.
KW HYPOTHETICAL PROTEIN.
SQ SEQUENCE 552 AA; 60896 MW; 54F32B19 CRC32;

Query Match 90.9%; Score 40; DB 2; Length 552;
Best Local Similarity 83.3%; Pred. No. 4.59e+01;
Matches 5; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 312 EICDP 317
QY 1 EICADP 6
::||:|

RESULT 13
ID 005748 PRELIMINARY; PRT; 724 AA.
AC 005748;
DT 01-JUL-1997 (TREMBLREL. 04, CREATED)
DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE PTRB.
GN PTRB.
OS MYCOBACTERIUM LEPAE.
OC BACTERIA; FIRMICUTES; ACTINOBACTERIA; MYCOBACTERIA; MYCOBACTERIACEAE;
OC MYCOBACTERIUM.
RN [1]

RP SEQUENCE FROM N.A.
RA BADCOCK K., CHURCHER C.M.;
RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]
RP SEQUENCE FROM N.A.
RA PARKHILL J., BARRELL B.G., RAJANDREAM M.A.;
RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [3]
RP SEQUENCE FROM N.A.
RX MEDLINE: 9318700.
RA EIGMEIER K., HONORE N., WOODS S.A., CAUDRON B., COLE S.T.;
RT "Use of an ordered cosmid library to deduce the genomic organization of Mycobacterium lepreae.";
RL MOL. MICROBIOL. 7:197-206(1993).
DR EMBL: Z95151: E315055:
PFAM: PF00326; Prolyl_oligopep; 1.
SQ SEQUENCE 724 AA; 81361 MW; A862B88C CRC32;

Query Match 90.9%; Score 40; DB 2; Length 724;
Best Local Similarity 83.3%; Pred. No. 4.59e+01;
Matches 5; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 483 EICVP 488
QY 1 EICADP 6
::||:|

RESULT 14
ID 090733 PRELIMINARY; PRT; 2404 AA.
AC 090733;
DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE POLYPEPTIDE.
OS WHEAT YELLOW MOSAIC VIRUS.
OC VIRUSES; SSNA POSITIVE-STRAND VIRUSES. NO DNA STAGE; POTYVIRIDAE.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 98301984.
RA NAMBA S., KASHIMAZAKI S., LU X., TAMURA M., TSUCHIZAKI T.;
RT "Complete nucleotide sequence of wheat yellow mosaic bymovirus RT genomic RNAs.";
RL ARCH. VIROL. 143:631-643(1998).
DR EMBL: D86634: D1029708:
KW POLYPEPTIDE.
FT CHAIN 1 327 36K PROTEIN.
FT CHAIN 328 393 7K PROTEIN.
FT CHAIN 394 1052 73K PROTEIN.
FT CHAIN 1053 1583 60K PROTEIN.
FT CHAIN 1584 2111 59K PROTEIN.
FT CHAIN 2112 2404 32K PROTEIN.
SQ SEQUENCE 2404 AA; 269179 MW; C61FE7B CRC32;

Query Match 90.9%; Score 40; DB 14; Length 2404;
Best Local Similarity 66.7%; Pred. No. 4.59e+01;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 2001 DICAP 2006
QY 1 EICADP 6
::||:|

RESULT 15
ID 014745 PRELIMINARY; PRT; 80 AA.
AC 014745;
DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE ID78 ALPHA BETA PRECURSOR (FRAGMENT).
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]

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RP SEQUENCE FROM N.A.
RC TISSUE=BRNIN.
RA ISHIZUKA K., IGATA-YI R., NARUSE K., NAKASHIMA H., OHUCHI K.,
RA KATSURAI S., KIN Y., OHOTO Y., NOMIYAMA H., ITO M., MIURA R.,
RA MIYAKAWA T.;
RL SUBMITTED (AUG-1995) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: D63785; G961440; -.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
DR PFAM: PF00048; 118; 1.
KW SIGNAL.
FT SIGNAL 1 1
FT CHAIN <1 16 POTENTIAL.
FT NON_TER 17 >80 LID78 ALPHA BETA.
FT NON_TER 80 80
SQ SEQUENCE 80 AA; 8857 MW; 3F87F1C6 CRC32;

Query Match
Best Local Similarity 66.7%; Score 39; DB 4; Length 80;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 65 QVCADP 70
OY 1 EICADP 6

RESULT 16
ID 000585 PRELIMINARY; PRT; 134 AA.
AC 000585;
DT 01-JUL-1997 (TREMBLREL. 04, CREATED)
DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE BETA CHEMOKINE EXODUS-2.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RA HROMAS R.A., GRAY P., KLEMSZ M., FIFE K., BROOMEYER H.;
RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
PN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 97400322.
RA HEDRICK J.A., ZLOTNIK A.;
RT "Identification and characterization of a novel beta chemokine
containing six conserved cysteines.";
RL J. IMMUNOL. 159:1589-1593(1997).
RN [3]
RP SEQUENCE FROM N.A.
RA HEDRICK J.A., ZLOTNIK A.;
RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [4]
RP SEQUENCE FROM N.A.
RA NAGIRA M., IMAI T., HIESHIMA K., KUSUDA J., RIDANPAA M., TAKAGI S.,
RA NISHIMURA M., KAKIZAKI M., NOMIYAMA H., YOSHIE O.;
RL SUBMITTED (AUG-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: U88320; G2196920; -.
DR EMBL: AF001979; G2624925; -.
DR EMBL: AB002409; D1022673; -.
DR PFAM: PF00048; 118; 1.
SQ SEQUENCE 134 AA; 14646 MW; FE86A239 CRC32;

Query Match
Best Local Similarity 88.6%; Score 39; DB 4; Length 134;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 73 EICADP 78
OY 1 EICADP 6

RESULT 17
ID 008688 PRELIMINARY; PRT; 640 AA.
AC 008688;

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DT 01-JUL-1997 (TREMBLREL. 04, CREATED)
DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE CALPAIN 5 (CALPAIN-LIKE PROTEASE).
GN CAPNS OR NCL-3.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCIROGNATHI; MORIDAE; MORINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-BALB/C;
RX MEDLINE: 97480729.
RA DEAR T.N., MATEENA K., VINGRON M., BOEHM T.;
RT "A new subfamily of vertebrate calpains lacking a calmodulin-like
domain: implications for calpain regulation and evolution.";
RL GENOMICS 45:175-184(1997).
DR EMBL: Y10656; E300457; -.
DR MGD: MGI:1100859; CAPNS.
DR PFAM: PF00168; C2; 1.
DR PFAM: PF00648; Cys_protease_2; 1.
DR PFAM: PF01067; Calpain_III; 1.
KW PROTEASE.
SQ SEQUENCE 640 AA; 72954 MW; 1B4E733F CRC32;

Query Match
Best Local Similarity 66.7%; Score 39; DB 11; Length 640;
Matches 4; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 56 DICDDP 61
OY 1 EICADP 6

RESULT 18
ID 056043 PRELIMINARY; PRT; 1192 AA.
AC 056043;
DT 01-JUN-1998 (TREMBLREL. 06, CREATED)
DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
DT 01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
DE SEGMENT S2 P2.
OS RICE RAGGED STUNT VIRUS.
OC VIRUSES; DSRNA VIRUSES; REOVIRIDAE; ORYZAVIRUS.
RN [1]
RP SEQUENCE FROM N.A.
RA UPADHYAYA N.M., LI Z., RAMM K., YANG M., GELLATLY J.A., KOSTITRATANA W.,
RA GERLACH W.L., WATERHOUSE P.M.;
RL SUBMITTED (AUG-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: AF020335; G2921098; -.
SQ SEQUENCE 1192 AA; 133080 MW; 6BD970E3 CRC32;

Query Match
Best Local Similarity 66.7%; Score 39; DB 14; Length 1192;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 135 QVCADP 140
OY 1 EICADP 6

RESULT 19
ID 020397 PRELIMINARY; PRT; 101 AA.
AC 020397;
DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE F4AD12.10.
OS CAENORHABDITIS ELEGANS.
OC EUKARYOTA; METAZOA; NEMATODA; SECERNENTEA; RHABDITIA; RHABDITIDA;
OC RHABDITINA; RHABDITOIDEA; RHABDITIDAE; PELODERINAE; CAENORHABDITIS.
RN [1]
RP SEQUENCE FROM N.A.
RA COLES L.;
RL SUBMITTED (DEC-1995) TO EMBL/GENBANK/DBJ DATA BANKS.

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RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 94150718.
RA WILSON R., AINSOUGH R., ANDERSON K., BAYNES C., BERKS M., BONFIELD J.,
RA BURTON J., CONNELL M., COPELY T., COOPER J., COULSON A., CRAYTON M.,
RA DEAR S., DU Z., DURBIN R., FAVELL A., FULTON L., GARDNER A., GREEN P.,
RA HARKIN T., HILLIER L., JIER M., JOHNSTON L., JONES M., KERSHAW J.,
RA KIRSTEN J., LAISTER N., LATREILLE P., LIGHTING J., LLOYD C.,
RA MCURRAY A., MORTIMORE B., O'CALLAGHAN M., PARSONS J., PERCY C.,
RA RIKKEN L., ROOPRA A., SAUNDERS D., SHOWNKEEN R., SMALDON N., SMITH A.,
RA SONNHAMMER E., STADEN R., SULSTON J., THIERRY-MIEG J., THOMAS K.,
RA VAUDIN M., VAUGHAN K., WATERSTON R., WATSON A., WEINSTOCK L.,
RA WILKINSON-SPOAT J., WOODMAN P.,
RT "2.2 kb of contiguous nucleotide sequence from chromosome III of C.
RT elegans."
RL NATURE 368:32-38(1994).
DR EMBL: Z68298; E214752;
SQ SEQUENCE 101 AA; 11944 MW; 42F5A6B2 CRC32;

Query Match
Best Local Similarity 86.4%; Score 38; DB 5; Length 101;
Matches 5; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

DB 44 EICADP 49
OY 1 EICADP 6

RESULT 20
ID 061854 PRELIMINARY; PRT; 123 AA.
AC 061854;
DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE MAST CELL GROWTH FACTOR.
GN MGF.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCIROGNATHI; MORIDAE; MURINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-(102/ELX3H /EL)F1; TISSUE-BRAIN;
RX MEDLINE: 97032534.
RA GRAY J., LOEBSTER J., NEUBAUER-KLAUS A., PRETSCH W., SCHMITT-JOHN T.,
RT "Molecular analysis of two new Steel mutations in mice shows a
RT transversion or an insertion."
RL MAMM. GENOME 7:843-846(1996).
DR EMBL: X95379; E220404;
FT INIT MET
SQ SEQUENCE 123 AA; 13892 MW; F3244130 CRC32;

Query Match
Best Local Similarity 86.4%; Score 38; DB 11; Length 123;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

DB 27 EICADP 32
OY 1 EICADP 6

RESULT 21
ID 029340 PRELIMINARY; PRT; 138 AA.
AC 029340;
DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DT 01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
DE HYPOTHETICAL 15.3 KD PROTEIN.
GN AF0922.
OS ARCHAEoglobus FULGIDUS.
OC ARCHAEI; EURYARCHAEOTA; ARCHAEoglobales; ARCHAEoglobaceae;
OC ARCHAEoglobus.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-VC-16 / DSM 4304 / ATCC 49558;

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RX MEDLINE: 98049343.
RA KLENK H.-P., CLAYTON R.A., TOMB J.-F., WHITE O., NELSON K.E.,
RA KETCHUM K.A., DODSON R.J., GWINN M., HICKET E.K., PETERSON J.D.,
RA RICHARDSON D.L., KERLAVAGE A.R., GRAHAM D.E., KYRIDIS N.C.,
RA FLEISCHMANN R.D., QUACKENBUSH J., LEE N.H., SUTTON G.G., GILL S.,
RA KIRKNESS E.F., DOUGHERTY B.A., MCKENNEY K., ADAMS M.D., LOFTUS B.,
RA PETERSON S., REICH C.I., MCNEIL L.K., BADGER J.H., GLODEK A., ZHOU L.,
RA OVERBECK R., GOCYNE J.D., WEIDMAN J.F., McDONALD L., UTERBACK T.,
RA COTTON M.D., SPRIGGS T., ARTICH P., KAINE B.P., SYKES S.M.,
RA SAOON P.W., D'ANDREA K.P., BOWMAN C., FUJII C., GARLAND S.A.,
RA MASON T.M., OLSEN G.J., FRASER C.M., SMITH H.O., WOESE C.R.,
RA VENTER J.C.;
RT "The complete genome sequence of the hyperthermophilic,
RT sulphate-reducing archaeon Archaeoglobus fulgidus."
RL NATURE 390:364-370(1997).
DR EMBL: AE001040; G2649686;
DR TIGR: AF0922;
KM HYPOTHETICAL PROTEIN.
SQ SEQUENCE 138 AA; 15252 MW; 51E6A718 CRC32;

Query Match
Best Local Similarity 86.4%; Score 38; DB 1; Length 138;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

DB 35 EICADP 39
OY 2 EICADP 6

RESULT 22
ID 005391 PRELIMINARY; PRT; 200 AA.
AC 005391;
DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE URF 7 PROTEIN (FRAGMENT).
OS SYNECHOCOCCUS SP. (STRAIN PCC 6716).
OC BACTERIA; CYANOBACTERIA; CHROCOCCALES; SYNECHOCOCCUS.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-6716;
RX MEDLINE: 93371369.
RA VAN WALRAVEN H.S., LUTTER R., WALKER J.E.,
RT "Organization and sequences of genes for the subunits of ATP synthase
RT in the thermophilic cyanobacterium Synechococcus 6716."
RL BIOCHEM. J. 294:239-251(1993).
DR EMBL: X70433; G49237;
FT INIT MET
FT NON_TER
SQ SEQUENCE 200 AA; 22219 MW; AA0F314C CRC32;

Query Match
Best Local Similarity 86.4%; Score 38; DB 2; Length 200;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

DB 150 EICADP 155
OY 1 EICADP 6

RESULT 23
ID 064384 PRELIMINARY; PRT; 208 AA.
AC 064384;
DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE MAST CELL GROWTH FACTOR
DE (C-KIT LIGAND C-TERMINALLY TRUNCATED SECRETED FORM KL-SLD) (FRAGMENT).
GN MGF OR SL OR KL.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCIROGNATHI; MORIDAE; MURINAE; MUS.
RN [1]

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RP SEQUENCE FROM N.A.
RX MEDLINE: 92330001.
RA HOANG E.J., NOCKA K.H., BUCK J., BESMER P.;
RT "Differential expression and processing of two cell associated forms
of the kit-ligand: KL-1 and KL-2.";
RL MOL. BIOL. CELL 3:349-362(1992).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 91160046.
RA FLAMNGAN J.G., CHAN D.C., LEDER P.;
RT "Transmembrane form of the kit ligand growth factor is determined by
RT alternative splicing and is missing in the Sld mutant.";
RL CELL 64:1025-1035(1991).
DR EMBL: S40536; E59503; -
DR EMBL: M64262; G198596; -
DR MGD: MGI:96974; MGF.
FT NON-TER 208
SQ SEQUENCE 208 AA; 23222 MW; F3F54C53 CRC32;

Query Match
Best Local Similarity 86.4%; Score 38; DB 11; Length 208;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 27 EICGNP 32
|||:|
QY 1 EICADP 6

RESULT 24
ID 064222 PRELIMINARY; PRT; 245 AA.
AC 064222;
DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE C-KIT LIGAND TRUNCATED TRANSMEMBRANE FORM KL-2 (FRAGMENT).
GN SL/STEEL.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCUROGNATHI; MORIDAE; MURINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 92330001.
RA HUANG E.J., NOCKA K.H., BUCK J., BESMER P.;
RT "Differential expression and processing of two cell associated forms
of the kit-ligand: KL-1 and KL-2.";
RL MOL. BIOL. CELL 3:349-362(1992).
DR EMBL: S40534; E59502; -
DR TRANSMEMBRANE.
FT NON-TER 245
SQ SEQUENCE 245 AA; 27541 MW; 2611C70D CRC32;

Query Match
Best Local Similarity 86.4%; Score 38; DB 11; Length 245;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 27 EICGNP 32
|||:|
QY 1 EICADP 6

RESULT 25
ID P97332 PRELIMINARY; PRT; 273 AA.
AC P97332;
DT 01-MAY-1997 (TREMBLREL. 03, CREATED)
DT 01-JUN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE MAST CELL GROWTH FACTOR.
GN MGF S1-3NEU.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCUROGNATHI; MORIDAE; MURINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.

RC STRAIN-102/E1XC3H/E1P1;
RA GRAW J., NEUBAUSER-KLAUS, PRETSCH;
RL MUTAT. RES. GENOMICS 382:75-78(1997).
DR EMBL: Y10287; E1172508; -
DR MGD: MGI:96974; MGF.
SQ SEQUENCE 273 AA; 30618 MW; 1934A4B6 CRC32;

Query Match
Best Local Similarity 86.4%; Score 38; DB 11; Length 273;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 27 EICGNP 32
|||:|
QY 1 EICADP 6

RESULT 26
ID 062524 PRELIMINARY; PRT; 273 AA.
AC 062524;
DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE MAST CELL GROWTH FACTOR.
GN MGF.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCUROGNATHI; MORIDAE; MURINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RX STRAIN-C3H/EL. TISSUE-BRAIN;
RX MEDLINE: 97032534.
RA GRAW J., LOESTER J., NEUBAUSER-KLAUS A., PRETSCH W., SCHMITT-JOHN T.;
RT "Molecular analysis of two new Steel mutations in mice shows a
transversion or an insertion.";
RL MAMM. GENOME 7:843-846(1996).
DR EMBL: X99322; E254164; -
FT VARIANT 193 193 P -> L.
FT VARIANT 207 207 S -> A.
SQ SEQUENCE 273 AA; 30645 MW; 4A2BE512 CRC32;

Query Match
Best Local Similarity 86.4%; Score 38; DB 11; Length 273;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 27 EICGNP 32
|||:|
QY 1 EICADP 6

RESULT 27
ID P71057 PRELIMINARY; PRT; 344 AA.
AC P71057; O08176;
DT 01-FEB-1997 (TREMBLREL. 02, CREATED)
DT 01-FEB-1997 (TREMBLREL. 02, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE HYPOTHETICAL 39.8 KD PROTEIN.
GN YVER.
OS BACILLUS SUBTILIS.
OC BACTERIA; FIRMICUTES; BACILLUS/CLOSTRIDIUM GROUP; BACILLACEAE;
OC BACILLUS.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-168TRP;
RA FABRET C., QUENTIN Y., CHAPAL N., GUISEPI A., HAIECH J., DENIZOT F.;
RL SUBMITTED (AUG-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]
RP SEQUENCE FROM N.A.
RA DENIZOT F.C.;
RL SUBMITTED (APR-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [3]
RP SEQUENCE FROM N.A.
RC STRAIN-168;
RX MEDLINE: 98044033.

RA KUNST F., OGASAWARA N., MOSER I., ALBERTINI A.M., ALLONI G.,
 RA AZEVEDO V., BERTERO M.G., BESSIERES P., BOLOTIN A., BORCHERT S.,
 RA BOKSIS R., BOURISIER L., BRANS A., BRUN M., BRUNELL S.C., BRON S.,
 RA BROUILLET S., BROUSCH C.V., CALDWELL B., CAPRANO V., CARTER N.M.,
 RA CHOI S.K., COGANI J.J., CONNERTON I.F., CUMMINGS N.J., DANIEL R.A.,
 RA DENIZOT F., DEVINE K.M., DUSTERHOFF A., EHRICH S.D., EMERSON P.T.,
 RA ENTIAN K.D., ERRINGTON J., FABBET C., FERRARI E., FOULGER D., FRITZ C.,
 RA FUJITA M., FUJITA Y., FUWA S., GALIZZI A., GALLERON N., GIM S.T.,
 RA GLASER P., GOFFEAD A., GOLIGHTLY E.J., GRANDI G., GUSEPPI G.,
 RA GUY B.J., HAGA K., HAIECH J., HARWOOD C.R., HENAUT A., HILBERT H.,
 RA HOLZAPPEL S., HOSONO S., HULLO M.F., ITAYA M., JONES L., JORIS B.,
 RA KARMATA D., KASAHARA Y., KLAER-BLANCHARD M., KLEIN C., KOBAYASHI Y.,
 RA KOETTER P., KONINGSTEIN G., KROCH S., KUWANO M., KURITA K., LAPIDUS A.,
 RA LARDINOIS S., LABER J., LAZAREVIC V., LEE S.M., LEVINE A., LIU H.,
 RA MASUDA S., MAEL C., MEGIDE C., MEDINA N., MELLADO R.P., MIDONO M.,
 RA MESTEL D., NAEL S., NOBACK M., NOONE D., O'REILLY M., OGAWA K.,
 RA OGIMARA A., OUDERG B., PARK S.H., PARRO V., POHL T.M., PORTERELLE D.,
 RA PORROLIK S., PRESCOTT A.M., PRESECAN E., PUJIC P., PURNELLE B.,
 RA RAPPORT G., REY M., REYNOLDS S., RIEGER M., RIVOLTA C., ROCHA E.,
 RA ROCHE B., ROSE M., SADALE Y., SATO T., SCANLAN E., SCHLEICH S.,
 RA SCHROETER R., SCOPFONE F., SEKIGUCHI J., SEKOWSKA A., SERO S.J.,
 RA SERROR P., SHIN B.S., SOLDO B., SOROKIN A., TACCONI E., TAKAGI T.,
 RA TAKAHASHI H., TAKEMARU K., TAKEUCHI M., TAKAKOSHI A., TANAKA T.,
 RA TERSTRA P., TOGNONI A., TOSATO V., UCHIYAMA S., VANDERBOU M.,
 RA VANNIER F., VASSAROTTI A., VIARI A., WAMUTTI R., WEDLER E., WEDLER H.,
 RA WEITZENEGGER T., WINTERS P., WIPAT A., YAMAMOTO H., YAMANE K.,
 RA YASOMOTO K., YATA K., YOSHIDA K., YOSHIKAWA H.F., ZUMSTEIN E.,
 RA YOSHIKAWA H., DANCHIN A.;
 RT "The complete genome sequence of the gram-positive bacterium Bacillus
 RT subtilis";
 RL NATURE 390:249-256(1997).
 RN [4]
 RP SEQUENCE FROM N.A.
 RC STRAIN=168;
 RA KUNST F., OGASAWARA N., YOSHIKAWA H., DANCHIN A.;
 RL SUBMITTED (NOV-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: 271928; E238665; -;
 DR EMBL: 294043; E313059; -;
 DR EMBL: 299121; E1186118; -;
 DR PFM: PF00535; GLYCOS_transf_2; 1.
 KW HYPOTHETICAL PROTEIN.
 SQ SEQUENCE 344 AA; 39809 MW; 83D34545 CRC32;
 Query Match 86.4%; Score 38; DB 2; Length 344;
 Best Local Similarity 100.0%; Pred. No. 1.19e+02;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Db 288 ICADP 292
 Qy 2 ICADP 6
 RESULT 28
 ID 021805 PRELIMINARY; PRT; 369 AA.
 AC 021805;
 DT 01-NOV-1996 (TREMELREL. 01, CREATED)
 DT 01-NOV-1996 (TREMELREL. 01, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMELREL. 08, LAST ANNOTATION UPDATE)
 DE R0787.15.
 OS CAENORHABDITIS ELEGANS.
 OC EUKARYOTA; METAZOA; NEMATODA; SECERNENTEA; RHABDITIA; RHABDITIDAE;
 OC RHABDITIDAE; RHABDITIDAE; PELODERINAE; CAENORHABDITIS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA HARRIS B.;
 RL SUBMITTED (JUL-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 94150718.
 RA WILSON R., AINSCOUGH R., ANDERSON K., BAYNES C., BRKS M., BONFIELD J.,
 RA BURTON J., CONNELL M., COPSEY T., COOPER J., COULSON A., CRATTON M.,
 RA DEAR S., DU Z., DURBIN R., FAVELLO A., FULTON L., GARDNER A., GREEN P.,
 RA HAWKINS T., HILLIER L., JIER M., JOHNSTON L., JONES K., KERSHAW J.,

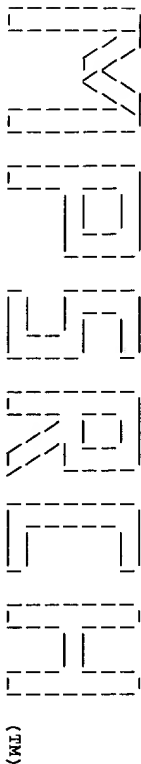
RA KIRSTEN J., LAISTER N., LATREILLE P., LIGHTNING J., LLOYD C.,
 RA MCURRAY A., MORTIMORE B., O'CALLAGHAN M., PARSONS J., PERCY C.,
 RA RIEKEN L., ROOPRA A., SANDERS D., SHOWNKEEN R., SMALLON N., SMITH A.,
 RA SONNHAMMER E., STADEN R., SULSTON J., THIERRY-MIEG J., THOMAS K.,
 RA VAUDIN M., VAUGHAN K., WATERSTON R., WATSON A., WEINSTOCK L.,
 RA WILKINSON-SPRAT J., WOHLDMAN P.;
 RT "2.2 Mb of continuous nucleotide sequence from chromosome III of C.
 RT elegans";
 RL NATURE 368:32-38(1994).
 DR EMBL: 275955; E253186; -;
 DR PFM: PF00105; zfc4; 1.
 SQ SEQUENCE 369 AA; 41645 MW; E96BFCF1 CRC32;
 Query Match 86.4%; Score 38; DB 5; Length 369;
 Best Local Similarity 66.7%; Pred. No. 1.19e+02;
 Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
 Db 44 EICADP 49
 Qy 1 EICADP 6
 RESULT 29
 ID 080378 PRELIMINARY; PRT; 433 AA.
 AC 080378;
 DT 01-NOV-1998 (TREMELREL. 08, CREATED)
 DT 01-NOV-1998 (TREMELREL. 08, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMELREL. 08, LAST ANNOTATION UPDATE)
 DE 181 (FRAGMENT).
 GN 181-1D10.
 OS DAUCUS CAROTA (CARROT).
 OC EUKARYOTA; VIRIDIPHYTES; CHANOPHYTA; EMBRYOPHYTA GROUP; EMBRYOPHYTA;
 OC TRACHEOPHYTES; EUPHYLOPHYTES; SPERMATOPHYTES; MAGNOLIOPHYTES;
 OC EUDICOTYLEDONS; ASTERIDAE; ARALES; ADACEAE; DAUCUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA XU Z., UEDA K., MASUDA K., ITOH A., ONO M., INOUE M.;
 RT "A novel protein from carrot embryo";
 RL SUBMITTED (MAR-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: AB012703; D1033788; -;
 FT NON TER 1
 SQ SEQUENCE 433 AA; 50558 MW; 57D0CFDF CRC32;
 Query Match 86.4%; Score 38; DB 10; Length 433;
 Best Local Similarity 100.0%; Pred. No. 1.19e+02;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Db 398 ICADP 402
 Qy 2 ICADP 6
 RESULT 30
 ID 042135 PRELIMINARY; PRT; 673 AA.
 AC 042135;
 DT 01-JAN-1998 (TREMELREL. 05, CREATED)
 DT 01-JAN-1998 (TREMELREL. 05, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMELREL. 08, LAST ANNOTATION UPDATE)
 DE NA/MYO-INOSTITOL CO-TRANSPORTER.
 OS XENOPUS LAEVIS (AFRICAN CLAWED FROG).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; AMPHIBIA; BATRACHIA; ANURA;
 OC MESOBATRACHIA; PIPOIDEA; PIPOIDEA; XENODIDAE; XENODIDAE; XENODIDAE;
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE=SMALL INTESTINE;
 RA NAGATA K.;
 RL SUBMITTED (OCT-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: AB008225; D1023825; -;
 DR PFM: PF00474; SSF; 1.
 SQ SEQUENCE 673 AA; 74135 MW; AB030618 CRC32;
 Query Match 86.4%; Score 38; DB 13; Length 673;
 Best Local Similarity 66.7%; Pred. No. 1.19e+02;

Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 347 EICGNP 352

Oy 1 EICADP 6

Search completed: Thu Apr 1 07:29:31 1999
Job time : 33 secs.



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MSearch_pp protein - protein database search, using Smith-Waterman algorithm
Run on: Thu Apr 1 07:33:11 1999; MasPar time 2.66 Seconds
Tabular output not generated. 36.499 Million cell updates/sec

Title: >US-08-927-939-9
Description: (1-6) from US08927939.rpep
Perfect Score: 53
Sequence: 1 KOKMWQ 6

Scoring table: PAM 150
Gap 15

Searched: 131922 seqs, 16180660 residues

Post-processing: Minimum Match 0%
Listing first 100 summaries

Database: a-geneseq32
1:part1 2:part2 3:part3 4:part4 5:part5 6:part6 7:part7
8:part8 9:part9 10:part10 11:part11 12:part12 13:part13
14:part14 15:part15 16:part16 17:part17 18:part18
19:part19 20:part20 21:part21 22:part22 23:part23
24:part24 25:part25 26:part26 27:part27 28:part28
29:part29

Statistics: Mean 15.564; Variance 64.525; scale 0.241

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description	Pred. No.
1	53	100.0	66 24	W13598	Monocyte chemoattract	1.15e+02
2	53	100.0	67 24	W13599	Monocyte chemoattract	1.15e+02
3	53	100.0	68 24	W13597	Monocyte chemoattract	1.15e+02
4	53	100.0	69 14	R87678	des(2-8) MCP-1.	1.15e+02
5	53	100.0	69 24	W13596	Monocyte chemoattract	1.15e+02
6	53	100.0	76 14	R87676	(24-Arg) MCP-1.	1.15e+02
7	53	100.0	76 15	R87680	Monocyte chemotactic	1.15e+02
8	53	100.0	76 5	R28660	MCP.	1.15e+02
9	53	100.0	76 5	R28660	Sequence of bovine P6	1.15e+02
10	53	100.0	76 14	P90292	Peptide from human g1	1.15e+02
11	53	100.0	76 14	R87677	(3-Ala) MCP-1.	1.15e+02
12	53	100.0	76 14	R87675	(28-Arg) MCP-1.	1.15e+02
13	53	100.0	76 21	W09374	Monocyte chemotactic	1.15e+02
14	53	100.0	76 21	W11131	Mature human monocyte	1.15e+02
15	53	100.0	76 10	R53398	Sense MCP-1.	1.15e+02
16	53	100.0	77 15	R86859	Mature MCP-1.	1.15e+02
17	53	100.0	99 13	R70800	Chemoattractant prote	1.15e+02
18	53	100.0	99 3	R26581	Sequence of P6 precu	1.15e+02

19	53	100.0	99 14	R73914	Human monocyte chemo	1.15e+02
20	53	100.0	99 2	R06398	Human MCF precursor.	1.15e+02
21	53	100.0	99 5	P95387	Human monocyte chemo-	1.15e+02
22	53	100.0	99 2	R28663	MCF.	1.15e+02
23	50	94.3	632 16	R85300	Arbidopsin pathogen	2.04e+02
24	50	94.3	1269 20	W03659	RPP5 downy mildew res	2.04e+02
25	49	92.5	71 27	W26575	Dro13+ chemokine beta	2.47e+02
26	49	92.5	75 27	W26573	Bac 2 chemokine beta1	2.47e+02
27	49	92.5	79 27	W26572	Bac 2 chemokine beta1	2.47e+02
28	49	92.5	79 27	W26574	Dro11/2 chemokine bet	2.47e+02
29	49	92.5	82 27	W26571	Bac 1 chemokine beta1	2.47e+02
30	49	92.5	82 24	W17655	Stem cell mobilising	2.47e+02
31	49	92.5	88 27	W26570	Human chemokine beta1	2.47e+02
32	49	92.5	98 28	W30191	Monocyte chemotactic	2.47e+02
33	49	92.5	98 17	R93087	Human chemokine beta-	2.47e+02
34	49	92.5	395 26	W23347	Novel murine CX3C 395	2.47e+02
35	49	92.5	395 28	W34308	Mouse neurotactin.	2.47e+02
36	47	88.7	579 29	W39924	Amino acid sequence o	3.60e+02
37	46	86.8	10 25	W32687	Human platelet glycop	4.35e+02
38	46	86.8	67 14	R73915	Human monocyte chemo	4.35e+02
39	46	86.8	73 13	R70252	Eotaxin chemoattracta	4.35e+02
40	46	86.8	82 29	W44721	Amino acid sequence o	4.35e+02
41	46	86.8	96 24	W14991	Guinea pig eosinocyte	4.35e+02
42	46	86.8	97 24	W14990	Human eosinocyte CC t	4.35e+02
43	46	86.8	97 21	W00567	Pancreas expressed ch	4.35e+02
44	46	86.8	97 23	W10099	Human ectactin.	4.35e+02
45	46	86.8	99 13	R70801	Chemoattractant prote	4.35e+02
46	46	86.8	109 2	R24353	Cytokine encoded by c	4.35e+02
47	45	84.9	70 24	W17661	Stem cell mobilising	5.24e+02
48	45	84.9	119 17	R85779	Human monocyte chemot	5.24e+02
49	45	84.9	119 12	W07845	Human monocyte chemot	5.24e+02
50	44	83.0	914 12	R71100	Protein-tyrosine-kin	6.31e+02
51	44	83.1	18 4	R22353	IL8 receptor-interact	7.58e+02
52	43	81.1	23 11	R58625	Putative glycan bindi	7.58e+02
53	43	81.1	29 4	R20237	NF(44-72) peptide in	7.58e+02
54	43	81.1	67 7	R38087	Modified human interl	7.58e+02
55	43	81.1	67 7	R38086	Modified human interl	7.58e+02
56	43	81.1	68 7	R38083	Modified human interl	7.58e+02
57	43	81.1	68 7	R38084	Modified human interl	7.58e+02
58	43	81.1	68 7	R38085	Modified human interl	7.58e+02
59	43	81.1	69 7	R38081	Modified human interl	7.58e+02
60	43	81.1	69 7	R38082	Modified human interl	7.58e+02
61	43	81.1	72 20	R99805	Chemokine-like protei	7.58e+02
62	43	81.1	72 20	R99806	Chemokine-like protei	7.58e+02
63	43	81.1	72 20	W41502	Neutrophil chemotacti	7.58e+02
64	43	81.1	72 20	R99803	Chemokine-like protei	7.58e+02
65	43	81.1	72 20	R38080	Human interleukin-8 m	7.58e+02
66	43	81.1	72 1	P90913	Sequence of a synthe	7.58e+02
67	43	81.1	72 10	R99804	Chemokine-like protei	7.58e+02
68	43	81.1	72 11	R70183	Soluble interleukin-8	7.58e+02
69	43	81.1	72 1	R03615	Human neutrophil chem	7.58e+02
70	43	81.1	72 23	W25702	Mutant human IL-8, L4	7.58e+02
71	43	81.1	72 26	P81838	Sequence of a synthe	7.58e+02
72	43	81.1	72 23	W25711	Mutant human IL-8, L4	7.58e+02
73	43	81.1	72 24	W26204	Neutrophil-specific	7.58e+02
74	43	81.1	72 23	W25706	Mutant human IL-8, R4	7.58e+02
75	43	81.1	72 20	R99812	Chemokine-like protei	7.58e+02
76	43	81.1	72 23	W25713	Mutant human IL-8, F2	7.58e+02
77	43	81.1	72 23	W25705	Mutant human IL-8, F4	7.58e+02
78	43	81.1	72 23	W25703	Mutant human IL-8, E4	7.58e+02
79	43	81.1	72 23	W12435	Chimeric interleukin-1	7.58e+02
80	43	81.1	72 23	W25712	Mutant human IL-8, L4	7.58e+02
81	43	81.1	72 23	W25710	Mutant human IL-8, D4	7.58e+02
82	43	81.1	72 23	W25707	Mutant human IL-8, Y1	7.58e+02
83	43	81.1	72 23	W25708	Mutant human IL-8, S1	7.58e+02
84	43	81.1	72 23	W25704	Mutant human IL-8, E4	7.58e+02
85	43	81.1	72 1	R03186	Human neutrophil chem	7.58e+02
86	43	81.1	72 22	W04516	Interleukin(1-72) pro	7.58e+02
87	43	81.1	72 23	W25714	Mutant human IL-8, Y1	7.58e+02
88	43	81.1	73 20	R99816	Chemokine-like protei	7.58e+02
89	43	81.1	73 20	R99818	Chemokine-like protei	7.58e+02
90	43	81.1	73 20	R99815	Chemokine-like protei	7.58e+02
91	43	81.1	73 1	P90078	Human neutrophil acti	7.58e+02

92	43	81.1	73	20	P99814	Interleukin-8.	7.58e+02
93	43	81.1	77	1	P90017	Human neutrophil acti	7.58e+02
94	43	81.1	77	3	R13168	(Ala IL-8)177 leukocyt	7.58e+02
95	43	81.1	93	27	R13168	Novel beta-chemokine	7.58e+02
96	43	81.1	97	13	R70795	Interleukin-8/NAP-1.	7.58e+02
97	43	81.1	99	2	P93631	Antino acid sequence o	7.58e+02
98	43	81.1	99	1	R05239	Human neutrophil chem	7.58e+02
99	43	81.1	620	23	W19855	Myeloperoxidase thermo	7.58e+02
100	43	81.1	620	22	W19855	Myeloperoxidase thermo	7.58e+02

ALIGNMENTS

RESULT 1
ID W13598 standard; peptide: 66 AA.

AC W13598;
DE Monocyte chemoattractant protein analogue MCP-1 (10-76).
KW Truncated monocyte chemoattractant protein-1; inhibitor;
KW receptor binding; anti-inflammatory; basophil; lymphocyte; allergy;
KW chronic inflammatory disease; arthritis; arteriosclerosis;
KW Lung disease.
OS Homo sapiens.
PN CA2152141-A.
PD 20-DEC-1996.
PF 19-JUN-1995; 152141.
PR 19-JUN-1995; CA-152141.
PA (LEWIS) LEWIS I.
PI Gong J, Lewis I;
DR WPI: 97-165844/16.
PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
PT lacks MCP-1 activity and inhibits receptor binding, useful as
PT anti-inflammatory agent
PS Disclosure: Page 5; 27pp: English.
CC The present sequence represents an analogue, MCP-1 (10-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-9 of MCP-1, acts as an antagonist of MCP-1
CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammation sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC providing 50% inhibition of binding at a 25:1 ratio or less, compared
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 66 AA;

Query Match 100.0%; Score 53; DB 24; Length 66;
Best Local Similarity 100.0%; Pred. No. 1.15e+02;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 46 kgkwyg 51
| | | | |
QY 1 KOKWVO 6

RESULT 2
ID W13599 standard; peptide: 67 AA.
AC W13599;
DE 07-NOV-1997 (first entry)
DE Monocyte chemoattractant protein analogue MCP-1 (11-76).
KW Truncated monocyte chemoattractant protein-1; inhibitor;
KW receptor binding; anti-inflammatory; basophil; lymphocyte; allergy;
KW chronic inflammatory disease; arthritis; arteriosclerosis;
KW Lung disease.
OS Homo sapiens.
PN CA2152141-A.
PD 20-DEC-1996.
PF 19-JUN-1995; 152141.
PR 19-JUN-1995; CA-152141.
PA (LEWIS) LEWIS I.

PI Gong J, Lewis I;
DR WPI: 97-165844/16.
PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
PT lacks MCP-1 activity and inhibits receptor binding, useful as
PT anti-inflammatory agent
PS Disclosure: Page 5; 27pp: English.
CC The present sequence represents an analogue, MCP-1 (11-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-10 of MCP-1, acts as an antagonist of MCP-1
CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammation sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC providing 50% inhibition of binding at a 25:1 ratio or less, compared
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 67 AA;

Query Match 100.0%; Score 53; DB 24; Length 67;
Best Local Similarity 100.0%; Pred. No. 1.15e+02;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 47 kgkwyg 52
| | | | |
QY 1 KOKWVO 6

RESULT 3
ID W13597 standard; peptide: 68 AA.
AC W13597;
DE 07-NOV-1997 (first entry)
DE Monocyte chemoattractant protein analogue MCP-1 (9-76).
KW Truncated monocyte chemoattractant protein-1; inhibitor;
KW receptor binding; anti-inflammatory; basophil; lymphocyte; allergy;
KW chronic inflammatory disease; arthritis; arteriosclerosis;
KW Lung disease.
OS Homo sapiens.
PN CA2152141-A.
PD 20-DEC-1996.
PF 19-JUN-1995; 152141.
PR 19-JUN-1995; CA-152141.
PA (LEWIS) LEWIS I.
PI Gong J, Lewis I;
DR WPI: 97-165844/16.
PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
PT lacks MCP-1 activity and inhibits receptor binding, useful as
PT anti-inflammatory agent
PS Claim 7; Page 5; 27pp: English.
CC The present sequence represents an analogue, MCP-1 (9-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-8 of MCP-1, acts as an antagonist of MCP-1
CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammation sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC providing 50% inhibition of binding at a 25:1 ratio or less, compared
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 68 AA;

Query Match 100.0%; Score 53; DB 24; Length 68;
Best Local Similarity 100.0%; Pred. No. 1.15e+02;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 48 kgkwyg 53
| | | | |
QY 1 KOKWVO 6

RESULT 4
ID R87678 standard; protein: 69 AA.
AC R87678;
DT 21-FEB-1996 (first entry)
DE des(2-8) MCP-1.
KW monocyte chemoattractant protein; MCP-1; mutant; restenosis;
OS Homo sapiens.
FH Key
FT modified_site 2..3
FT /note="amino acids 2-8 of the native protein have
FT been deleted between these residues"
FT disulfide_bond 4..29
FT disulfide_bond 5..45
FT WO9513295-A1.
PD 18-MAY-1995.
PR 07-NOV-1994: U12874.
PR 12-NOV-1993: US-152301.
PA (DAND) DANA FARBER CANCER INST INC.
PI Rollins B, Zhang YJ;
DR WPI: 95-215051/28.
PT Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are
PT capable of inhibiting the monocyte chemo-attractant activity of
PT endogenous MCP-1 and can be used to treat restenosis
PS Claim 4; Page 11; 22pp; English.
CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
CC that they inhibit the monocyte chemoattractant activity of endogenous
CC MCP-1, provided that the derivative has not been modified by the
CC substitution of 28-Tyr by leu and/or 30-Arg by Val. Preferred mutations
CC are: (1) substitution of 28-Tyr by aspartate; (2) substitution of 24 Arg
CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
CC acids 2-8. The present sequence is a specifically claimed human MCP-1
CC derivative based on the parent protein disclosed in Rollins, Molecular
CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
CC The peptides can be used to prevent restenosis, e.g. in patients
CC undergoing coronary artery angioplasty.
SQ Sequence 69 AA;

Query Match 100.0%; Score 53; DB 14; Length 69;
Best Local Similarity 100.0%; Pred. No. 1.15e+02;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

DB 49 kqkwwg 54
|||
QY 1 KOKWVO 6

RESULT 5
ID W13596 standard; peptide: 69 AA.
AC W13596;
DT 07-NOV-1997 (first entry)
DE Monocyte chemoattractant protein analogue MCP-1 (8-76).
KW Truncated monocyte chemoattractant protein-1; inhibitor;
KW receptor binding; anti inflammatory; basophil; lymphocyte; allergy;
KW chronic inflammatory disease; arthritis; arteriosclerosis;
KW lung disease.
OS Homo sapiens.
PN CA2152141-A.
PD 20-DEC-1996.
PF 19-JUN-1995: 152141.
PR 19-JUN-1995; CA-152141.
PA (LEWIS/) LEWIS I.
PI Gong J, Lewis I;
DR WPI: 97-165844/16.
PT N-terminally truncated monocyte chemo-attractant protein-1 (MCP-1) -
PT lacks MCP-1 activity and inhibits receptor binding, useful as
PT anti-inflammatory agent
PS Claim 5; Page 5; 27pp; English.
CC The present sequence represents an analogue, MCP-1 (8-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-7 of MCP-1, acts as an antagonist of MCP-1

CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammatory sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC providing 50% inhibition of binding at a 25:1 ratio or less, compared
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 69 AA;

Query Match 100.0%; Score 53; DB 24; Length 69;
Best Local Similarity 100.0%; Pred. No. 1.15e+02;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

DB 49 kqkwwg 54
|||
QY 1 KOKWVO 6

RESULT 6
ID R87676 standard; protein: 76 AA.
AC R87676;
DT 21-FEB-1996 (first entry)
DE (24-Arg) MCP-1.
KW monocyte chemoattractant protein; MCP-1; mutant; restenosis;
OS Homo sapiens.
FH Key
FT modified_site 24
FT /note="Arg in the native sequence is replaced by Phe"
FT disulfide_bond 11..36
FT disulfide_bond 12..52
FT WO9513295-A1.
PD 18-MAY-1995.
PR 07-NOV-1994: U12874.
PR 12-NOV-1993: US-152301.
PA (DAND) DANA FARBER CANCER INST INC.
PI Rollins B, Zhang YJ;
DR WPI: 95-215051/28.
PT Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are
PT capable of inhibiting the monocyte chemo-attractant activity of
PT endogenous MCP-1 and can be used to treat restenosis
PS Claim 5; Page 11; 22pp; English.
CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
CC that they inhibit the monocyte chemoattractant activity of endogenous
CC MCP-1, provided that the derivative has not been modified by the
CC substitution of 28-Tyr by leu and/or 30-Arg by Val. Preferred mutations
CC are: (1) substitution of 28-Tyr by aspartate; (2) substitution of 24 Arg
CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
CC acids 2-8. The present sequence is a specifically claimed human MCP-1
CC derivative based on the parent protein disclosed in Rollins, Molecular
CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
CC The peptides can be used to prevent restenosis, e.g. in patients
CC undergoing coronary artery angioplasty.
SQ Sequence 76 AA;

Query Match 100.0%; Score 53; DB 14; Length 76;
Best Local Similarity 100.0%; Pred. No. 1.15e+02;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

DB 56 kqkwwg 61
|||
QY 1 KOKWVO 6

RESULT 7
ID R87680 standard; protein: 76 AA.
AC R87680;
DT 05-MAR-1996 (first entry)
DE Monocyte chemotactic activating factor for use as wound remedy.
KW monocyte chemotactic activating factor; MCAF; wound remedy.

OS Homo sapiens.
 PN W09507710-A1.
 PD 23-MAR-1995.
 PF 13-SEP-1994. J01512.
 PR 13-SEP-1993; JP-227385.
 PA (TORA) TORAY IND INC.
 PI Matsushima K, Naruto M;
 DR WPI: 95-131181/17.
 PT Wound treatment using monocytic chemotactic factor - has potent
 therapeutic effect on skin wounds and ulcers
 PS Disclosure; Page 12: 22pp; Japanese.
 CC The invention relates to a new remedy for curing wounds which, instead
 of comprising a growth factor, comprises a monocytic chemotactic
 activating factor (MCAF) or its variants or derivatives. The factor has
 potent effect on skin wounds and ulcers. The present sequence is human
 MCAF, the activity of which is exemplified as the new remedy.
 CC Sequence 76 AA;

Query Match 100.0%; Score 53; DB 15; Length 76;
 Best Local Similarity 100.0%; Pred. No. 1.15e+02;

Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 56 kqkvwq 61
 |||||

OY 1 KOKWVQ 6

RESULT 8
 ID R28660 standard; Protein; 76 AA.
 AC R28660;
 DT 24-MAR-1993 (first entry)
 DE MCF.
 KW Plasmid; monocytic chemotactic factor; MCF; translation;
 KW termination; terminator; initiation; ribosome binding site;
 KW RBS; promoter; tryptophan; repressor.
 OS Synthetic.
 PN W09219737-A.
 PD 12-NOV-1992.
 PF 27-APR-1992; J00550.
 PR 09-MAY-1991; JP-135950.
 PA (DAIN) DAINIPPON PHARM CO LTD.
 PI Fukui T, Matsuo N, Yamada M, Yamagishi J;
 DR WPI: 92-398864/48.
 DR N-PSDB: 030745-46.
 PT Prod. of polypeptide(s) having monocytic chemotactic activity -
 PT using expression plasmids with E. coli elements and specific
 PT E.coli strains
 PS Claim 1; Page 48 + Page 36; 56pp; English.
 CC An expression plasmid, pHM483, for producing MCF(76) consisting
 of 76 amino acids was constructed. The prod. can be used for e.g.
 CC treating bacterial infectious diseases.
 CC Sequence 76 AA;

Query Match 100.0%; Score 53; DB 5; Length 76;
 Best Local Similarity 100.0%; Pred. No. 1.15e+02;

Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 56 kqkvwq 61
 |||||

OY 1 KOKWVQ 6

RESULT 9
 ID R26580 standard; Protein; 76 AA.
 AC R26580;
 DT 28-JAN-1993 (first entry)
 DE Sequence of bovine P6 protein.
 KW Monocyte chemoattractant; bovine P6-derivative; thrombosis; tumour;
 KW inflammation therapy.
 OS Bos taurus.
 PN DE4125251-C.
 PD 03-SEP-1992.
 PF 31-JUL-1991; 125251.

PR 31-JUL-1991; DE-125251.
 PA (SCHAE) SCHAEFER & BRUEMME GMBH & CO KG.
 PI Gramm W, Lins E;
 DR WPI: 92-293438/36.
 PT Drug containing a bovine protein homologous to human MCP-1 - for
 treating inflammation, tumours, thrombosis, and immune reactions,
 PT also for diagnosis
 PS Claim 1; Page 3; 6pp; German.
 CC Poly(A)+RNA from bull seminal vesicles was used to prepare a cDNA in
 CC the expression vector lambda g11. 1.5 x 10(5) cDNA clones were
 CC screened with a polyclonal anti-P6 antiserum of monospecific
 CC immunoglobulin G and six positives were identified. The insert of a
 CC suitable cDNA clone, pH42, was cloned into pUC18 and sequenced.
 CC p142 encodes the 11,114 Da precursor of P6. It is called Monocyte
 CC Chemoattractant (MCP-1), which is a homologue of human (h)MCP-1.
 CC There is 72% overall AA sequence homology to hMCP-1 with the signal
 CC peptide showing 100% and the central region showing 89% homology.
 CC Sequence 76 AA;

Query Match 100.0%; Score 53; DB 5; Length 76;
 Best Local Similarity 100.0%; Pred. No. 1.15e+02;

Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 56 kqkvwq 61
 |||||

OY 1 KOKWVQ 6

RESULT 10
 ID P90292 standard; peptide; 76 AA.
 AC P90292;
 DT 17-JAN-1990 (first entry)
 DE Peptide from human glioma cell line U-105MG.
 KW Glioma; leucocyte; chemotaxis; neoplasms.
 OS Human.
 FH Key
 FT modified_site 1 Location/Qualifiers
 FT /label= OTHER
 FT /note= "pyroglutamic acid"
 PN US7304234-A.
 PD 20-JUL-1989.
 PF 31-JAN-1989; 030423.
 PR 31-JAN-1989; US-304234.
 PA (USSH) US Dept. of Health and Human.
 PI Yoshimura T, Robinson E, Appella E; Leonard E.
 DR WPI: 89-263501/36.
 PT New peptide with specific chemotactic activity for monocytes - isolated
 PT from glioma or leucocyte cells, useful for treating infections and
 PT neoplasms.
 PS Disclosure; page 3; 46pp; English.
 CC Peptide is derived from glioma cell line U-105MG (ATCC CRL9932) or from
 CC leukocytes and has mol. wt. 8400. Used to treat infections and neoplasms.
 CC Sequence 76 AA;

Query Match 100.0%; Score 53; DB 1; Length 76;
 Best Local Similarity 100.0%; Pred. No. 1.15e+02;

Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 56 kqkvwq 61
 |||||

OY 1 KOKWVQ 6

RESULT 11
 ID R87677 standard; protein; 76 AA.
 AC R87677;
 DT 21-FEB-1996 (first entry)
 DE (3-Ala) MCP-1.
 KW monocyte chemoattractant protein; MCP-1; mutant; restenosis;
 KW angioplasty.
 OS Homo sapiens.
 FH key
 FT modified_site 3 Location/Qualifiers

FT disulfide_bond 11..36 /note= "asp in the native sequence is replaced by Ala"
 FT disulfide_bond 12..52
 PN W09513295-A1.
 PD 18-MAY-1995.
 PF 07-NOV-1994: U12874.
 PR 12-NOV-1993: US-152301.
 PA (DAND) DANA FARBER CANCER INST INC.
 PI Rollins B, Zhang YJ;
 DR WPI: 95-215051/28.
 PT Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are
 capable of inhibiting the monocyte chemo-attractant activity of
 endogenous MCP-1 and can be used to treat restenosis
 PS Claim 6, Page 11; 22pp; English.
 CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
 that they inhibit the monocyte chemoattractant activity of endogenous
 MCP-1, provided that the derivative has not been modified by the
 substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
 are: (1) substitution of 28-Tyr by aspartate; (2) substitution of 24 Arg
 by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
 acids 2-8. The present sequence is a specifically claimed human MCP-1
 derivative based on the parent protein disclosed in Rollins, Molecular
 and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
 CC The peptides can be used to prevent restenosis, e.g. in patients
 undergoing coronary artery angioplasty.
 SO Sequence 76 AA;

Query Match 100.0%; Score 53; DB 14; Length 76;
 Best Local Similarity 100.0%; Pred. No. 1.15e+02;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 56 kqkvwg 61
 111111
 QY 1 KOKWVQ 6

RESULT 12
 ID R87675 standard; protein: 76 AA.
 AC R87675;
 DT 21-FEB-1996 (first entry)
 DE (28-Asp) MCP-1.
 KW monocyte chemoattractant protein; MCP-1; mutant; restenosis;
 KM angioplasty.
 OS Homo sapiens.
 FH Key modified_site 28 Location/Qualifiers
 FT /note= "Tyr in the native sequence is replaced by Asp"
 FT disulfide_bond 11..36
 FT disulfide_bond 12..52
 PN W09513295-A1.
 PD 18-MAY-1995.
 PF 07-NOV-1994: U12874.
 PR 12-NOV-1993: US-152301.
 PA (DAND) DANA FARBER CANCER INST INC.
 PI Rollins B, Zhang YJ;
 DR WPI: 95-215051/28.
 PT Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are
 capable of inhibiting the monocyte chemo-attractant activity of
 endogenous MCP-1 and can be used to treat restenosis
 PS Claim 3, Page 11; 22pp; English.
 CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
 that they inhibit the monocyte chemoattractant activity of endogenous
 MCP-1, provided that the derivative has not been modified by the
 substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
 are: (1) substitution of 28-Tyr by aspartate; (2) substitution of 24 Arg
 by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
 acids 2-8. The present sequence is a specifically claimed human MCP-1
 derivative based on the parent protein disclosed in Rollins, Molecular
 and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
 CC The peptides can be used to prevent restenosis, e.g. in patients
 undergoing coronary artery angioplasty.
 SO Sequence 76 AA;

Query Match 100.0%; Score 53; DB 14; Length 76;
 Best Local Similarity 100.0%; Pred. No. 1.15e+02;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 56 kqkvwg 61
 111111
 QY 1 KOKWVQ 6

RESULT 13
 ID W09374 standard; Protein: 76 AA.
 AC W09374;
 DT 21-MAR-1997 (first entry)
 DE Monocyte chemotactic protein 1.
 KW Human; monocyte chemoattractant protein; antisenese; inhibition;
 KM mononuclear cell; lymphocyte; macrophage; smooth muscle cell;
 KW vascular restenosis.
 OS Homo sapiens.
 FH Key Location/Qualifiers
 FT misc_difference 1 /note= "encoded by codon CAG"
 FT misc_difference 51 /note= "encoded by codon AUG"
 FT misc_difference 65 /note= "encoded by codon CAC"
 PN US5571713-A.
 PD 05-NOV-1996.
 PF 22-OCT-1992: 965678.
 PR 22-OCT-1992: US-965678.
 PR 27-MAY-1994: US-250958.
 PA (UNM1) UNIV MICHIGAN, Strieler RM;
 PI Kunkel SL, Lyle LR, Strieler RM;
 DR WPI: 96-505405/50.
 DR N-PSDB: T48092.
 PT Anti-sense Monocyte Chemotactic Protein-1 oligo:nucleotide(s) -
 useful for therapy or diagnosis of restenosis, etc.
 PS Disclosure; Column 13-14; 16pp; English.
 CC This is the amino acid sequence of the human monocyte chemoattractant
 protein (MCP)-1, a member of the C-C chemokine family. MCP-1 is a potent
 stimulator of monocyte chemotaxis and is produced by injured vascular
 CC smooth cells thus attracting monocytes and macrophages which infiltrate
 CC the injured area and release growth factor. This causes proliferation of
 CC the vascular smooth cells resulting in restenosis. The gene sequence can
 CC be used to generate antisense sequences e.g. T48093-7, which can be used
 CC to inhibit in vitro MCP-1 prodn. by mononuclear cells e.g. lymphocytes or
 CC macrophages, or smooth muscle cells, esp. in order to prevent vascular
 CC restenosis.
 SO Sequence 76 AA;

Query Match 100.0%; Score 53; DB 20; Length 76;
 Best Local Similarity 100.0%; Pred. No. 1.15e+02;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 56 kqkvwg 61
 111111
 QY 1 KOKWVQ 6

RESULT 14
 ID W11131 standard; protein: 76 AA.
 AC W11131;
 DT 10-JUN-1997 (first entry)
 DE Mature human monocyte chemoattractant protein-1 (MCP-1).
 KW MCP-1; mature chemoattractant protein-1; cytokine; interleukin-8;
 KW IL-8; neutrophil activating peptide; labeling; imaging; targeting;
 KW radionuclide; infection; inflammation; neoplasm; atherosclerotic lesion;
 KW restenosis.
 OS Homo sapiens.
 FH Key Location/Qualifiers
 FT misc_difference 1 /note= "X- any amino acid"
 FT FT
 PN US5605671-A.
 PD 23-FEB-1997.

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PF 05-OCT-1992; 956862.
PR 05-OCT-1992; US-956863.
PR 05-OCT-1992; US-956862.
PR 29-APR-1994; US-235659.
PA (MCM ) MALLINCKRODT MEDICAL INC.
PA (UNMI ) UNIV MICHIGAN.
PI Kunkel SL, Lyle LR, Strieter RM;
DR WPI: 97-153541/14.
PT Radio:labelling neutrophil-activating peptide(s) - for imaging
PS Targeted delivery of radioactive agent
CC Example 10; Column 19-20; 15pp; English.
CC W1131 represents mature human monocyte chemotactant protein-1
CC (MCP-1). MCP-1 was radiolabeled and used in a method for
CC imaging a target site in vivo in an animal. Labeled MCP-1 was allowed
CC to accumulate at a target site (having MCP-1 receptors) in the animal
CC and detected so as to image the target site. Any Cys-Cys or Cys-Xaa-Cys
CC chemokine carrying either Iodine-123 or Iodine-131 can be used in the
CC method. Especially preferred is neutrophil activating peptide-2 (NAP-2)
CC which recognises interleukin-8 receptors and is labelled with
CC technetium-99m, indium-111, copper-62, rhenium-186 or rhenium-188.
CC The method can be used for imaging a site of infection, inflammation,
CC neoplasm, atheromatous lesion or restenosis.
SQ Sequence 76 AA;

Query Match 100.0%; Score 53; DB 21; Length 76;
Best Local Similarity 100.0%; Pred. No. 1.15e+02;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 56 kqkwwq 61
| | | | |
QY 1 KQKWWQ 6

AC R53398 standard; Protein; 76 AA.
ID R53398;
AC R53398;
DE 15-DEC-1994 (first entry)
DE Sense MCP-1.
KW Antisense: RNA; DNA; monocyte chemotactic protein-1; MCP-1;
KW radionuclide; vascular restenosis; alpha; beta; emitting isotope;
KW diagnosis; monocytes; vascular injury.
OS Mammalian.
FH Key location/Qualifiers
FT misc_difference 1 /note="Unspecified amino acid"
FN
PD W09409128-A.
PD 28-APR-1994.
PF 20-OCT-1993; U10074.
PR 22-OCT-1992; US-965678.
PA (MCM ) MALLINCKRODT MEDICAL INC.
PI Lyle LR;
DR WPI: 94-151314/18.
PT Anti-sense monocyte chemotactic protein-1 oligo:nucleotide(s) and
PT peptide(s) - is used for inhibiting, treating or imaging areas of
PT vascular restenosis or potential restenosis
PS Disclosure: Page 5; 42pp; English.
CC The sequences given in R53398-99 represent sense and antisense
CC monocyte chemotactic protein-1 (MCP-1) respectively. These
CC oligonucleotides may be labelled with a radionuclide and use
CC therapeutically for the treatment of vascular restenosis.
CC Radiolabelled antisense MCP-1 compounds may be constructed using high
CC energy alpha or beta emitting isotopes rather than the gamma MCP-1
CC emitters cutmatically used for diagnostic purposes. Antisense MCP-1
CC compounds inactivate MCP-1 or inhibit production of MCP-1 so that
CC monocytes are not attracted to the area of vascular injury and
CC proliferation of vascular cells is inhibited.
SQ Sequence 76 AA;

Query Match 100.0%; Score 53; DB 10; Length 76;
Best Local Similarity 100.0%; Pred. No. 1.15e+02;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 56 kqkwwq 61

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QY 1 KQKWWQ 6
| | | | |
RESULT 16
ID R66859 standard; Protein; 77 AA.
AC R66859;
DR 20-MAR-1996 (first entry)
DE Mature MCP-1.
KW Antisense; monocyte chemotactic protein-1; MCP-1;
KW "C-C" family; chemotactant cytokine; chemokine; stimulation;
KW monocyte; chemotaxis; vascular smooth muscle cell; macrophage;
KW proliferation; restenosis; balloon angioplasty.
OS Homo sapiens.
PN W09519167-A1.
PD 20-JUL-1995.
PF 13-JAN-1995; U00605.
PR 14-JAN-1994; US-182917.
PA (MCM ) MALLINCKRODT MEDICAL INC.
PI Lyle LR, Thomas-Miller B;
DR WPI: 95-263703/34.
DR N-PSDB: T03528.
PT New anti-sense oligo:nucleotide(s) and peptide(s) for inhibiting
PT restenosis - are directed against C-C family cytokine(s) such as
PT monocyte chemotactic protein, opt. radio:labelled for therapy or
PT imaging
PS Disclosure: Page 5; 50pp; English.
CC This sequence represents the mature form of monocyte chemotactic
CC protein-1 (MCP-1). MCP-1 is a member of the "C-C" family of
CC chemotactant cytokines or chemokines. It is a potent stimulator
CC of monocyte chemotaxis and has an extremely high degree of specificity
CC for this cell type. MCP-1 is produced by injured vascular smooth muscle
CC cells and attracts the monocytes and macrophages which infiltrate the
CC area, releasing growth factors and resulting in proliferation of vascular
CC smooth muscle and restenosis. Nucleic acid molecules which are antisense
CC to the MCP-1 mRNA may be used to inhibit translation of MCP-1 and so may
CC be useful for inhibiting vascular restenosis, partic. following balloon
CC angioplasty or a related process. The molecule may be radiolabelled to
CC increase its therapeutic effect or for imaging areas of potential
CC restenosis.
SQ Sequence 77 AA;

Query Match 100.0%; Score 53; DB 15; Length 77;
Best Local Similarity 100.0%; Pred. No. 1.15e+02;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 57 kqkwwq 62
| | | | |
QY 1 KQKWWQ 6

AC R70800 standard; Protein; 99 AA.
ID R70800;
DR 29-AUG-1995 (first entry)
DE Chemotactant protein MCP-1.
KW MCP-1; chemotactant; heparanase; heparin; heparan sulfate;
KW arthritis; restenosis; cancer; wound healing.
OS Homo sapiens.
PN W09504158-A.
PD 09-FEB-1995.
PF 26-JUL-1994; U08207.
PR 29-JUL-1993; US-099866.
PR 13-OCT-1993; US-136117.
PA (UPJO ) UPJOHN CO.
PI Hoogwerf AJ, Ledbetter SR;
DR WPI: 95-082239/11.
DR N-PSDB: Q85370.
PT Screening for cpds. with anti-heparanase activity - by detecting
PT inhibition of heparin or heparan sulphate degradation,
PT potentially useful for treating arthritis, restenosis, cancer.
PS Claim 13; Page 49; 60pp; English.
CC Purified heparanases, prepared under reducing conditions and

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CC activated with transglutaminase, are given in R70786-804. Most
 CC are prepared by reverse transcription of mRNA from activated human
 CC leukocytes, then cloning of the cDNA into pVL192 baculovirus
 CC vector, and expression in Sf9 cells in the presence of reduced
 CC glutathione and dithiothreitol.
 SQ Sequence 99 AA;

Query Match 100.0%; Score 53; DB 13; Length 99;
 Best Local Similarity 100.0%; Pred. No. 1.15e+02;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 79 kqkwyg 84
 |||||
 Qy 1 KOKWVO 6

RESULT 18
 ID R26581 standard; Protein; 99 AA.

AC R26581;
 DT 28-JAN-1993 (first entry)
 DE Sequence of P6 precursor protein.
 KW Monocyte chemoattractant; bovine P6-derivative; thrombosis; tumour;
 KW inflammation therapy.
 OS Bos taurus.

FT Key peptide
 FT Location/Qualifiers
 FT 1..23
 FT /label= signal

PN DE4125251-C.
 PD 03-SEP-1992.
 PE 31-JUL-1991; 125251.
 PR 31-JUL-1991; DE-125251.
 PA (SCHA-) SCHAEFER & BROEMMER GMBH & CO KG.
 PI Gramm W, Lins E;
 DR WPI; 92-293438/36.
 DR N-PSDB; 027946.

PT Drug containing a bovine protein homologous to human MCP-1 - for
 PT treating inflammation, tumours, thrombosis, and immune reactions,
 PT also for diagnosis
 PS Disclosure; Page 4; 6pp; German.
 CC Poly(A)-RNA from bull seminal vesicles was used to prepare a cDNA in
 CC the expression vector lambda gtl1. 1.5 x 10(5) cDNA clones were
 CC screened with a polyclonal anti-P6 antiserum of monospecific
 CC immunoglobulin G and six positives were identified. The insert of a
 CC suitable cDNA clone, pK42, was cloned into pUC18 and sequenced.
 CC pK42 encodes the 11,114 Da precursor of P6. It is called Monocyte
 CC Chemoattractant (bmcp-1), which is a homologue of human (h)MCP-1.
 CC There is 72% overall AA sequence homology to hMCP-1 with the signal
 CC peptide showing 100% and the central region showing 89% homology.
 SQ Sequence 99 AA;

Query Match 100.0%; Score 53; DB 5; Length 99;
 Best Local Similarity 100.0%; Pred. No. 1.15e+02;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 79 kqkwyg 84
 |||||
 Qy 1 KOKWVO 6

RESULT 19
 ID R73914 standard; Protein; 99 AA.

AC R73914;
 DT 05-DEC-1995 (first entry)
 DE Human monocyte chemoattractant factor hMCP-1.
 KW Human monocyte chemoattractant factor; hMCP-1; chemokine; vaccine;
 KW meningitis related homologous antigenic sequence; MRHS; RV-1;
 KW immunosassy; diagnosis; treatment; prophylactic; bacterial;
 KW vital.

OS Homo sapiens.
 PN WO9509232-A.
 PD 06-APR-1995.
 PF 28-SEP-1994; CA0516.
 PR 28-SEP-1993; US-127499.

PA (SHAR/) SHARMA L R.
 PA (VALS/) VAN ALSTYNE D.
 PI Sharma LR, Van Alstyne D;
 DR WPI; 95-147431/19.
 PR New peptide(s) and corresp. antibodies for the treatment of
 PR meningitis - the peptide(s) corresp. to homologous antigenic
 PR sites on bacterial and viral agents and on chemokine(s), used for
 PR detecting and preventing meningitis
 PS Claim 47; Fig 8/10; 98pp; English.
 CC R73914 is the chemokine Human monocyte chemoattractant factor hMCP-1.
 CC It contains the meningitis related antigenic sequences (MRHS) claimed
 CC in R73895 and R73907, which are recognised by a monoclonal antibody
 CC from the hybridoma Rubella virus (RV)-1. The claimed MRHS peptides
 CC may be used in immunoassays to diagnose the presence of bacterial
 CC and/or viral meningitis agents in a sample, or in prophylactic and
 CC therapeutic meningitis treatments. The peptides may also be used as
 CC vaccines against meningitis.
 CC NB: Identified by matching corresponding MRHS peptides.
 SQ Sequence 99 AA;

Query Match 100.0%; Score 53; DB 14; Length 99;
 Best Local Similarity 100.0%; Pred. No. 1.15e+02;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 79 kqkwyg 84
 |||||
 Qy 1 KOKWVO 6

RESULT 20
 ID R06398 standard; Protein; 99 AA.

AC R06398;
 DT 14-DEC-1990 (first entry)
 DE Human MCF precursor.
 KW Monocyte chemoattractant factor; antibacterial; antitumour; cancer.
 OS Homo sapiens.

FT Key
 FT Location/Qualifiers
 FT 24..99
 FT /label=mature MCF
 FT /note="Claim 1"
 FT misc_difference 76
 FT /label=A or T

PN WO9007863-A.
 PD 26-JUL-1990.
 PE 02-JAN-1990; U00004.
 PR 01-JAN-1989; JP-000065.
 PR 03-FEB-1989; JP-026438.
 PA (USDC) US SEC OF COMMERCE.
 PI Fututani Y, Fukui T, Junichi Y, Masaaki Y, Matsushima K;
 PI Oppenheim J;
 DR WPI; 90-253802/33.
 DR P-PSDB; R06398.

PT Human monocyte chemoattractant factor type polypeptide and DNA
 PT encoding it - useful as antibacterial and antitumour agents.
 PS Claim 2; Page 25; 27pp; English.
 CC The sequence was deduced from the DNA sequence determined from
 CC three recombinant plasmids, pMCF7, pMCF25 and pMCF29 which
 CC were isolated from a cDNA library prep. from RNA extracted from
 CC human promyelocytic leukaemia cell line, HL-60 (ATCC CCL-240).
 CC vectors. In plasmids pMCF7 and pMCF29 bases 105 and 226 were
 CC T and G resp. In pMCF25 they were C and A resp. The AA at posn.
 CC 76 of the precursor protein is therefore not determined and may be
 CC either Ala or Thr. The protein may be produced by recombinant
 CC DNA techniques in E. coli, and is useful as a drug for treatment of
 CC certain bacterial infections and cancers.
 SQ Sequence 99 AA;

Query Match 100.0%; Score 53; DB 2; Length 99;
 Best Local Similarity 100.0%; Pred. No. 1.15e+02;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 79 kqkwyg 84
 |||||

QY 1 KQKWWQ 6

RESULT 21

ID P95387 standard; protein; 99 AA.

AC P95387;

DT 25-JUL-1989 (first entry)

DE Human monocytic chemo-attractant peptide-1.

KW Human monocytic chemo-attractant peptide; inflammatory disease; neoplasms.

OS Homo sapiens.

FT protein

FT key

FT Location/Qualifiers

FT 24..99

FT /product=MCP-1

PN US7330446-A.

PD 25-JUL-1989;

PF 30-MAR-1989; 330446.

PR 30-MAR-1989; US-330446.

PA (USSH) US Dept. Health and Human.

PI Yoshimura T, Robinson EA, Appella E, Leonard EJ;

PI WPI: 89-300683/41.

DR N-PSDB; N91337.

PT Human derived monocytic chemo-attractant peptide prods. - obt'd. from human

PT glioma cell line U-105MG or peripheral blood mononuclear leukocytes.

PS Disclosure; fig 2; 66pp; English.

CC This is a human-derived monocyte chemo-attractant peptide (MCP-1) sequence

CC MCP-1 exhibits optimal chemotactic activity at a concn. of 1nM and has a

CC mol. mass of c.a. 8,400 D. MCP-1 can be used for treating infection eg

CC inflammatory disease, or for the control of neoplasms by accumulation of

CC monocytes at the site of the infection. The corresp. DNA is obt'd. by

CC chemical synthesis, by screening reverse transcripts of mRNA from

CC purified blood leukocytes or cell cultures of eg U-373 MG or KMG-5.

SQ Sequence 99 AA;

Query Match 100.0%; Score 53; DB 2; Length 99;

Best Local Similarity 100.0%; Pred. No. 1.15e+02;

Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 79 kqkwwq 84

QY 1 KQKWWQ 6

RESULT 22

ID R28663 standard; protein; 99 AA.

AC R28663;

DT 24-MAR-1993 (first entry)

DE MCF.

KW Plasmid; monocytic chemotactic factor; MCF; translation;

KW termination; terminator; initiation; ribosome binding site;

KW RBS; promoter; tryptophan; repressor.

OS Synthetic.

FT key

FT Location/Qualifiers

FT peptide

FT 1..23

FT /label= sig_peptide

FT protein

FT 24..99

FT /label= mat_protein

PN M09219737-A.

PD 12-NOV-1992.

PF 27-APR-1992; J00550.

PR 09-MAY-1991; JP-135950.

PA (DAIN) DAINIPPON PHARM CO LTD.

PI Fukui T, Matsuo N, Yamada M, Yamagishi J;

PI WPI: 92-398864/48.

DR N-PSDB; Q30748.

PT Prodn. of polypeptide(s) having monocytic chemotactic activity -

PT using expression plasmids with E. coli elements and specific

PT E.coli strains

PS Disclosure; Page 43-44; 56pp; English.

CC An expression plasmid, pMCF76 for producing MCF(76) consisting

CC of 76 amino acids was constructed. DNA encoding MCF(76) was

CC prep'd. using a recombinant plasmid pMCF7.

SQ Sequence 99 AA;

Query Match 100.0%; Score 53; DB 5; Length 99;

Best Local Similarity 100.0%; Pred. No. 1.15e+02;

Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 79 kqkwwq 84

QY 1 KQKWWQ 6

RESULT 23

ID R85300 standard; protein; 632 AA.

AC R85300;

DT 14-APR-1996 (first entry)

DE Arabidopsis pathogen resistance gene RPP5 protein.

KW Pathogen resistant; RPP5; tomato; C.fulvum; Avr 4; Avr 9; fungal;

KW leaf mould; variegation.

OS Arabidopsis sp.

PN M09531564-A2.

PD 23-NOV-1995.

PF 11-MAY-1995; G01075.

PR 11-MAY-1994; GB-009394.

PR 23-DEC-1994; WO-G02812.

PR 31-MAR-1995; GB-006658.

PR 07-APR-1995; GB-007232.

PA (GATS-) GATSBY CHARITABLE FOUND.

PI Hammond-Kosack KE, Jones DA, Jones JDG;

PI WPI: 96-010949/01.

DR N-PSDB; T06308.

PT Increasing plant pathogen resistance by induction of variegation -

PT may lead to acquired resistance to a broad range of pathogens.

PS Disclosure; Page 89-90; 131pp; English.

CC R85300 is the Arabidopsis pathogen resistance gene RPP5 protein. In a

CC new method the RPP5 gene is expressed highly in genetic constructs which

CC may be used to impart a broad range of pathogen resistance, by induction

CC of variegation, to transgenic plants (or parts or propagules of plants)

CC containing such constructs. RPP5 imparts resistance to the disease

CC caused by the leaf mould fungal pathogen Cladosporium fulvum.

CC C.fulvum contains avirulence (Avr) genes that confer recognition by

CC plants containing Cf genes, leading to the activation of host

CC defence mechanisms to attack the disease.

CC N.B. The amino acid sequence given here and that given as SEQ ID 10 in

CC the specification are different, see features table and T06308.

SQ Sequence 632 AA;

Query Match 94.3%; Score 50; DB 16; Length 632;

Best Local Similarity 83.3%; Pred. No. 2.04e+02;

Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 139 kqrwwq 144

QY 1 KQKWWQ 6

RESULT 24

ID W03659 standard; protein; 1269 AA.

AC W03659;

DT 19-FEB-1997 (first entry)

DE RPP5 downy mildew resistance protein.

KW Arabidopsis; RPP5; disease-resistance; downy mildew;

KW Peronospora parasitica; leucine-rich repeat; transgenic plant;

KW crop improvement.

OS Arabidopsis Landsberg erecta.

FT key

FT Location/Qualifiers

FT peptide

FT 104..109

FT /note= "Peptide W03660 (claim 22) used to construct

FT primer T37477 (claim 23)"

FT 437..441

FT /note= "Peptide W06331 (claim 22), used to construct

FT primer T37478 (claim 23)"

PN M09631608-A1.

PD 10-OCT-1996.

PF 09-APR-1995; G00849.

PR 07-APR-1995; GB-007232.

PA (INNE-) INNES CENT INNOVATIONS LTD JOHN.
 PI Coleman M, Daniels MJ, Jones JDG, Parker J, Szabo V;
 DR WPI: 96-465029/46.
 DR N-PSDB: T37476.
 PI Isolated Arabidopsis pathogen resistance gene RPP5 - for prodn. of
 PI transgenic plants esp. resistant to downy mildew fungus
 PS Claim 1: Fig 2: 59pp; English.
 CC This sequence represents an Arabidopsis RPP5 protein, which
 CC confers disease-resistance against the downy mildew fungus
 CC (Peronospora parasitica). The sequence includes leucine-rich
 CC Repeat regions, characteristic of many pathogen-resistance genes.
 CC The sequence shows strong homology to pathogen-resistance proteins
 CC N (from tobacco, conferring rust resistance) and L6
 CC (from flax, conferring rust resistance), including regions involved
 CC in nucleotide binding (Kinase-1a (P-loop), Kinase-2 and Kinase-3a
 CC domains). Primers T37477-78, corresponding to a conserved region
 CC between peptides W03660-61, may be used to identify other resistance
 CC genes in plants. The RPP5 gene may be expressed in a transgenic
 CC plant to confer disease-resistance.
 SQ Sequence 1269 AA;

Query Match 94.3%; Score 50; DB 20; Length 1269;
 Best Local Similarity 83.3%; Pred. No. 2,04e+02;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 139 kekwyg 144
 1:||||
 QY 1 KOKWVQ 6

RESULT 25
 ID W2675 standard; Protein: 71 AA.
 AC W2675;
 DE Drol3+ chemokine beta10 or monocyte chemotactic protein 4 variant.
 KW Human; chemokine beta10; CK beta10; treatment; antagonist;
 KW solid tumour; infection; autoimmune disease; asthma; antibody;
 KW fibrotic disease; psoriasis; neurodegenerative disease;
 KW wound healing; haematopoiesis regulation; gene therapy;
 KW chromosome identification; monocyte chemotactic protein 4;
 KW leukaemia; MCP-4; Drol3+ variant.
 OS Homo sapiens.
 PN MO9731098-A1.
 PD 28-AUG-1997.
 PR 23-FEB-1996; U02598.
 PR 23-FEB-1996; WO-U02598.
 PA (HUMA-) HUMAN GENOME SCI INC.
 PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
 PI Parmelee D, White J;
 DR WPI: 97-435153/40.
 PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
 PT protein 4 - useful to treat tumours, autoimmune disease, infection,
 PT asthma and fibrosis.
 PS Example 11: Fig 5: 83pp; English.
 CC The present sequence is human chemokine beta10 (CK beta10) or
 CC monocyte chemotactic protein 4 (MCP-4) Drol3+ variant, which can
 CC be used to treat patients deficient in CK beta10, while a CK beta10
 CC antagonist can be used to reduce excessive levels of CK beta10. CK
 CC beta10 can be used to treat leukaemia, solid tumours, chronic or
 CC opportunistic infections, autoimmune diseases, asthma, fibrotic
 CC diseases, psoriasis and neurodegenerative diseases. It also
 CC promotes wound healing, regulates haematopoiesis and generates
 CC antibodies. Labelled CK beta10 can be used to identify its cognate
 CC receptor, while cells expressing the receptor can be used to screen
 CC compounds for (ant)agonist activity. The antagonist can be used to
 CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
 CC infectious diseases, allergies, prostaglandin dependent fever and
 CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
 CC syndrome, lung inflammation and atherosclerosis. CK beta10 cDNA can
 CC be used to isolate genes encoding similar peptides, in gene therapy
 CC and for chromosome identification.
 SQ Sequence 71 AA;

Query Match 92.5%; Score 49; DB 27; Length 71;
 Best Local Similarity 83.3%; Pred. No. 2,47e+02;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 51 kekwyg 56
 1:||||
 QY 1 KOKWVQ 6

RESULT 26
 ID W2673 standard; Protein: 75 AA.
 AC W2673;
 DE Bac 3 chemokine beta10 or monocyte chemotactic protein 4 variant.
 KW Human; chemokine beta10; CK beta10; treatment; antagonist;
 KW solid tumour; infection; autoimmune disease; asthma; antibody;
 KW fibrotic disease; psoriasis; neurodegenerative disease;
 KW wound healing; haematopoiesis regulation; gene therapy;
 KW chromosome identification; monocyte chemotactic protein 4;
 KW leukaemia; MCP-4; Bac 3 variant.
 OS Homo sapiens.
 PN MO9731098-A1.
 PD 28-AUG-1997.
 PR 23-FEB-1996; U02598.
 PR 23-FEB-1996; WO-U02598.
 PA (HUMA-) HUMAN GENOME SCI INC.
 PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
 PI Parmelee D, White J;
 DR WPI: 97-435153/40.
 PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
 PT protein 4 - useful to treat tumours, autoimmune disease, infection,
 PT asthma and fibrosis.
 PS Example 11: Fig 5: 83pp; English.
 CC The present sequence is human chemokine beta10 (CK beta10) or
 CC monocyte chemotactic protein 4 (MCP-4) Bac 3 variant, which can be
 CC used to treat patients deficient in CK beta10, while a CK beta10
 CC antagonist can be used to reduce excessive levels of CK beta10. CK
 CC beta10 can be used to treat leukaemia, solid tumours, chronic or
 CC opportunistic infections, autoimmune diseases, asthma, fibrotic
 CC diseases, psoriasis and neurodegenerative diseases. It also
 CC promotes wound healing, regulates haematopoiesis and generates
 CC antibodies. Labelled CK beta10 can be used to identify its cognate
 CC receptor, while cells expressing the receptor can be used to screen
 CC compounds for (ant)agonist activity. The antagonist can be used to
 CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
 CC infectious diseases, allergies, prostaglandin dependent fever and
 CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
 CC syndrome, lung inflammation and atherosclerosis. CK beta10 cDNA can
 CC be used to isolate genes encoding similar peptides, in gene therapy
 CC and for chromosome identification.
 SQ Sequence 75 AA;

Query Match 92.5%; Score 49; DB 27; Length 75;
 Best Local Similarity 83.3%; Pred. No. 2,47e+02;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 55 kekwyg 60
 1:||||
 QY 1 KOKWVQ 6

RESULT 27
 ID W2672 standard; Protein: 77 AA.
 AC W2672;
 DE 19-MAR-1998 (first entry)
 KW Human; chemokine beta10; CK beta10; treatment; antagonist;
 KW solid tumour; infection; autoimmune disease; asthma; antibody;
 KW fibrotic disease; psoriasis; neurodegenerative disease;
 KW wound healing; haematopoiesis regulation; gene therapy;
 KW chromosome identification; monocyte chemotactic protein 4;
 KW leukaemia; MCP-4; Bac 2 variant.
 OS Homo sapiens.

PN W09731098-A1.
PD 28-AUG-1997.
PR 23-FEB-1996; U02598.
PA (HUMA-) HUMAN GENOME SCI INC.
PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
PI Parmelee D, White J;
PI WPI: 97-435153/40.
PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
PT protein 4 - useful to treat tumours, autoimmune disease, infection,
PT asthma and fibrosis
PS Example 11; Fig 5; 83pp; English.
CC The present sequence is human chemokine beta10 (CK beta10) or
CC monocyte chemotactic protein 4 (MCP-4) Bac 2 variant, which can be
CC used to treat patients deficient in CK beta10, while a CK beta10
CC antagonist can be used to reduce excessive levels of CK beta10. CK
CC beta10 can be used to treat leukaemia, solid tumours, chronic or
CC opportunistic infections, autoimmune diseases, asthma, fibrotic
CC diseases, psoriasis and neurodegenerative diseases. It also
CC promotes wound healing, regulates haematopoiesis and generates
CC antibodies. Labelled CK beta10 can be used to identify its cognate
CC receptor, while cells expressing the receptor can be used to screen
CC compounds for (ant)agonist activity. The antagonist can be used to
CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
CC infectious diseases, allergies, prostaglandin dependent fever and
CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
CC syndrome, lung inflammation and atherosclerosis. CK beta10 cDNA can
CC be used to isolate genes encoding similar peptides, in gene therapy
CC and for chromosome identification.
SQ Sequence 77 AA;

Query Match 92.5%; Score 49; DB 27; Length 77;
Best Local Similarity 83.3%; Pred. No. 2.47e+02;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 57 kekwyg 62
1 KOKWVO 6

RESULT 28
ID W22674 standard; Protein: 79 AA.
AC W22674;
DT 19-MAR-1998 (first entry)
DE Droll1/2 chemokine beta10 or monocyte chemotactic protein 4 variant.
KW Human; chemokine beta10; CK beta10; treatment; antagonist;
KW solid tumour; infection; autoimmune disease; asthma; antibody;
KW fibrotic disease; psoriasis; neurodegenerative disease;
KW wound healing; haematopoiesis regulation; gene therapy;
KW chromosome identification; monocyte chemotactic protein 4;
KW leukaemia; MCP-4; Droll1/2 variant.
OS Homo sapiens.
PN W09731098-A1.
PD 28-AUG-1997.
PR 23-FEB-1996; U02598.
PA (HUMA-) HUMAN GENOME SCI INC.
PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
PI Parmelee D, White J;
PI WPI: 97-435153/40.
PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
PT protein 4 - useful to treat tumours, autoimmune disease, infection,
PT asthma and fibrosis
PS Example 11; Fig 5; 83pp; English.
CC The present sequence is human chemokine beta10 (CK beta10) or
CC monocyte chemotactic protein 4 (MCP-4) Droll1/2 variant, which can
CC be used to treat patients deficient in CK beta10, while a CK beta10
CC antagonist can be used to reduce excessive levels of CK beta10. CK
CC beta10 can be used to treat leukaemia, solid tumours, chronic or
CC opportunistic infections, autoimmune diseases, asthma, fibrotic
CC diseases, psoriasis and neurodegenerative diseases. It also
CC promotes wound healing, regulates haematopoiesis and generates
CC antibodies. Labelled CK beta10 can be used to identify its cognate

CC receptor, while cells expressing the receptor can be used to screen
CC compounds for (ant)agonist activity. The antagonist can be used to
CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
CC infectious diseases, allergies, prostaglandin dependent fever and
CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
CC syndrome, lung inflammation and atherosclerosis. CK beta10 cDNA can
CC be used to isolate genes encoding similar peptides, in gene therapy
CC and for chromosome identification.
SQ Sequence 79 AA;

Query Match 92.5%; Score 49; DB 27; Length 79;
Best Local Similarity 83.3%; Pred. No. 2.47e+02;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 59 kekwyg 64
1 KOKWVO 6

RESULT 29
ID W22671 standard; Protein: 82 AA.
AC W22671;
DT 19-MAR-1998 (first entry)
DE Bac 1 chemokine beta10 or monocyte chemotactic protein 4 variant.
KW Human; chemokine beta10; CK beta10; treatment; antagonist;
KW solid tumour; infection; autoimmune disease; asthma; antibody;
KW fibrotic disease; psoriasis; neurodegenerative disease;
KW wound healing; haematopoiesis regulation; gene therapy;
KW chromosome identification; monocyte chemotactic protein 4;
KW leukaemia; MCP-4; Bac 1 variant.
OS Homo sapiens.
PN W09731098-A1.
PD 28-AUG-1997.
PR 23-FEB-1996; U02598.
PA (HUMA-) HUMAN GENOME SCI INC.
PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
PI Parmelee D, White J;
PI WPI: 97-435153/40.
PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
PT protein 4 - useful to treat tumours, autoimmune disease, infection,
PT asthma and fibrosis
PS Example 11; Fig 5; 83pp; English.
CC The present sequence is human chemokine beta10 (CK beta10) or
CC monocyte chemotactic protein 4 (MCP-4) Bac 1 variant, which can be
CC used to treat patients deficient in CK beta10, while a CK beta10
CC antagonist can be used to reduce excessive levels of CK beta10. CK
CC beta10 can be used to treat leukaemia, solid tumours, chronic or
CC opportunistic infections, autoimmune diseases, asthma, fibrotic
CC diseases, psoriasis and neurodegenerative diseases. It also
CC promotes wound healing, regulates haematopoiesis and generates
CC antibodies. Labelled CK beta10 can be used to identify its cognate
CC receptor, while cells expressing the receptor can be used to screen
CC compounds for (ant)agonist activity. The antagonist can be used to
CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
CC infectious diseases, allergies, prostaglandin dependent fever and
CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
CC syndrome, lung inflammation and atherosclerosis. CK beta10 cDNA can
CC be used to isolate genes encoding similar peptides, in gene therapy
CC and for chromosome identification.
SQ Sequence 82 AA;

Query Match 92.5%; Score 49; DB 27; Length 82;
Best Local Similarity 83.3%; Pred. No. 2.47e+02;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 62 kekwyg 67
1 KOKWVO 6

RESULT 30
ID W17665 standard; peptide: 82 AA.

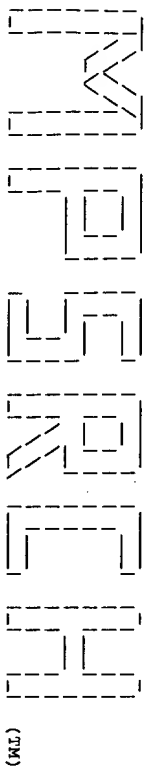
AC W17665;
DE 16-DEC-1997 (first entry)
KW Stem cell mobilising chemokine CXbeta-10.
KW Haematopoietic cell; parasitic infection; colony stimulating factor;
KW haematoregulator; immune response; bacterial infection; transplant;
KW wound healing; bone marrow; immunosuppression; regeneration;
KW neoplastic disease; viral disease; gene therapy; cytotoxic drug.
OS Synthetic.
PN W09715594-A1.
PD 01-MAY-1997.
PF 23-OCT-1996; 016959.
PR 24-OCT-1995; US-006051.
PA (SMK) SMITHKLINE BEECHAM CORP.
PI Kreider BL, Li H, Pelus L, White JR;
DR WPT; 97-256956/23.
PT Ten new chemokine(s) able to mobilise stem cells - used where
PT increased levels of haematopoietic cells are required, e.g. to
PT increase resistance to infection
PS Claim 7; Page 11-12; 24pp; English.
CC The present sequence represents a chemokine, CXbeta-10, which is capable
CC of mobilising stem cells. The chemokine can be used therapeutically to
CC improve stem cell mobilisation, optionally together with a colony
CC stimulating factor or other haematoregulatory agent. It can be used
CC wherever an increased level of haematopoietic cells is needed, e.g. to
CC increase the immune response to chronic infection (particularly
CC bacterial or parasitic), to promote wound healing, in (transplant)
CC patients with reduced bone marrow function as a result of
CC immunosuppressive treatment or disease, and to provide more rapid
CC regeneration of bone marrow after treatment for neoplastic or viral
CC diseases. The induced stem cells may be harvested for subsequent return
CC to the patient, optionally after they have been genetically manipulated
CC to deliver a selected gene product (gene therapy). The cells may be
CC co-administered with a cytotoxic drug.
SQ Sequence 82 AA;

Query Match 92.5%; Score 49; DB 24; Length 82;
Best Local Similarity 83.3%; Pred. No. 2,47e+02;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

DB 62 kekvwg 67
1:||||
QY 1 KOKWVQ 6

Search completed: Thu Apr 1 07:33:30 1999
Job time : 19 secs.

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(TM)

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MPearch_pp protein - protein database search, using Smith-Waterman algorithm

Run on: Thu Apr 1 07:32:23 1999; MasPar time 3.10 Seconds

Tabular output not generated. 72.455 Million cell updates/sec

Title: >US-08-927-939-9

Description: (1-6) from US08927939.dep

Perfect Score: 53

Sequence: 1 KOKWVQ 6

Scoring table: PAM 150
Gap 15

Searched: 116738 segs, 37463448 residues

Post-processing: Minimum Match 0%

Listing first 100 summaries

Database: p1r58
1:p1r1 2:p1r2 3:p1r3 4:p1r4

Statistics: Mean 21.949; Variance 39.337; scale 0.558

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description	Pred. No.
1	53	100.0	99	2	JC2136	monocyte chemottract 1.25e+01
2	53	100.0	99	2	A60299	monocyte chemottract 1.25e+01
3	53	100.0	99	2	JC2336	monocyte chemottract 1.25e+01
4	53	100.0	99	2	A39296	monocyte chemottract 1.25e+01
5	53	100.0	125	2	I46857	monocyte chemottract 1.25e+01
6	50	94.3	192	2	E71437	probable resistance g 3.58e+01
7	49	92.5	95	2	JN0841	interleukin-8 - dog 5.05e+01
8	49	92.5	101	2	I46871	interleukin-8 - rabbi 5.05e+01
9	49	92.5	101	2	I46997	interleukin-8 - sheep 5.05e+01
10	49	92.5	101	2	S42486	interleukin 8 - sheep 5.05e+01
11	49	92.5	103	2	A53096	interleukin-8 precurs 5.05e+01
12	49	92.5	103	2	A44253	alveolar macrophage c 5.05e+01
13	49	92.5	324	2	S43424	zipper containing pro 9.89e+01
14	47	88.7	145	2	S76877	hypothetical protein 9.89e+01
15	47	88.7	579	2	A56740	sperm-egg recognition 9.89e+01
16	47	88.7	651	2	S73558	phosphate transport s 9.89e+01
17	46	86.8	96	2	JC2478	ectoxin - rat 1.38e+02
18	46	86.8	96	2	I48099	ectoxin precursor - g 1.38e+02
19	46	86.8	99	2	JC2417	monocyte chemottract 1.38e+02
20	46	86.8	101	2	I48148	Neutrophil attractant 1.38e+02
21	46	86.8	109	2	A54678	monocyte chemotactic 1.38e+02
22	46	86.8	120	2	I48147	monocyte chemottract 1.38e+02
23	46	86.8	187	2	C71317	hypothetical protein 1.38e+02

24	86.8	289	2	D70452	leucyl-RNA synthetas 1.38e+02
25	86.8	334	2	G71328	hypothetical protein 1.38e+02
26	86.8	460	2	E64019	hypothetical protein 1.38e+02
27	84.9	141	2	E64368	hypothetical protein 1.90e+02
28	84.9	178	2	F69804	hypothetical protein 1.90e+02
29	84.9	1038	2	A71437	probable resistance g 1.90e+02
30	83.0	128	2	S19497	hypothetical protein 2.62e+02
31	83.0	251	2	S20455	pqqc protein - Klebsi 2.62e+02
32	83.0	306	2	A48118	major epidermal calci 2.62e+02
33	83.0	333	2	G71442	hypothetical protein 2.62e+02
34	83.0	419	2	S71343	calreticulin precursor 2.62e+02
35	83.0	500	2	S59795	hypothetical protein 2.62e+02
36	83.0	521	2	S76556	hypothetical protein 2.62e+02
37	83.0	591	2	A45135	proflaegirin - human 2.62e+02
38	83.0	2248	2	A35938	proflaegirin - human 2.62e+02
39	81.1	97	2	JC4912	ectoxin - human 3.59e+02
40	81.1	99	2	A37034	interleukin-8 precurs 3.59e+02
41	81.1	122	2	A23521	serum amyloid A3 prec 3.59e+02
42	81.1	183	2	F69995	ABC transporter (perm 3.59e+02
43	81.1	246	2	S01789	pyruvate formate-lyas 3.59e+02
44	81.1	317	2	G70356	thymidylate synthase 3.59e+02
45	81.1	359	2	I56077	MHC class I antigen - 3.59e+02
46	81.1	389	2	E71113	probable nonspecific 3.59e+02
47	81.1	475	1	E48PT4	helicase (RC 3.6.1.-) 3.59e+02
48	81.1	477	2	F71436	hypothetical protein 3.59e+02
49	81.1	489	2	B42815	DNA primase Sog210 - 3.59e+02
50	81.1	633	2	S48956	hypothetical protein 3.59e+02
51	81.1	766	2	G71437	probable resistance g 3.59e+02
52	81.1	1256	2	C71436	probable resistance g 3.59e+02
53	81.1	1422	2	B71437	probable resistance g 3.59e+02
54	81.1	1587	2	S68420	citron - mouse 3.59e+02
55	81.1	1705	2	F71414	hypothetical protein 3.59e+02
56	81.1	1781	2	A34374	DNA-directed RNA poly 3.59e+02
57	81.1	2467	2	D71437	probable resistance g 3.59e+02
58	81.1	4085	2	S28600	hypothetical protein 3.59e+02
59	79.2	61	2	A33833	GTP-binding protein a 4.90e+02
60	79.2	92	2	I52322	macrophage inflammato 4.90e+02
61	79.2	97	2	A48093	monocytic cytokine FI 4.90e+02
62	79.2	119	2	D64002	hypothetical protein 4.90e+02
63	79.2	191	2	A36382	GTP-binding protein G 4.90e+02
64	79.2	191	2	A39265	GTP-binding protein G 4.90e+02
65	79.2	191	2	A39265	GTP-binding protein G 4.90e+02
66	79.2	264	2	S67861	GmLl protein - Xantho 4.90e+02
67	79.2	265	2	S32652	transcription factor 4.90e+02
68	79.2	328	2	A70127	phosphate ABC transpo 4.90e+02
69	79.2	335	2	JH0813	GTP-binding regulator 4.90e+02
70	79.2	346	2	E64002	hypothetical protein 4.90e+02
71	79.2	359	2	G70445	N-acetylmutamoyl-L-al 4.90e+02
72	79.2	376	2	S27015	GTP-binding regulator 4.90e+02
73	79.2	377	1	RGKSA1	GTP-binding regulator 4.90e+02
74	79.2	379	1	AG2964	guanine nucleotide-bi 4.90e+02
75	79.2	379	1	RGXLA	GTP-binding regulator 4.90e+02
76	79.2	380	1	RGHUA1	GTP-binding regulator 4.90e+02
77	79.2	382	1	RGFPA5	GTP-binding regulator 4.90e+02
78	79.2	383	2	S32457	gamma-butyrobetaine h 4.90e+02
79	79.2	385	1	RGFPA1	GTP-binding regulator 4.90e+02
80	79.2	394	2	S33458	GTP-binding regulator 4.90e+02
81	79.2	394	1	RGRTA2	GTP-binding regulator 4.90e+02
82	79.2	394	1	RGHVAE	GTP-binding regulator 4.90e+02
83	79.2	394	1	RGHVA2	GTP-binding regulator 4.90e+02
84	79.2	396	1	RGMSA2	GTP-binding regulator 4.90e+02
85	79.2	396	1	A71206	hypothetical protein 4.90e+02
86	79.2	397	1	RGPGA2	GTP-binding regulator 4.90e+02
87	79.2	419	2	S34421	GTP-binding regulator 4.90e+02
88	79.2	503	1	YEFVAC	phenylalanine--tRNA 1 4.90e+02
89	79.2	510	2	A29368	prostaglandin omega-h 4.90e+02
90	79.2	519	2	I53015	fatty acid omega-hydr 4.90e+02
91	79.2	519	2	JX0331	laurate omega-hydroxy 4.90e+02
92	79.2	591	2	I65981	fatty acid omega-hydr 4.90e+02
93	79.2	722	2	C71411	hypothetical protein 4.90e+02
94	79.2	801	2	D70309	ribonucleoside-diphos 4.90e+02
95	79.2	809	2	A55547	quinate-shikimate deh 4.90e+02
96	79.2	846	2	S52418	GTP-binding regulator 4.90e+02

#authors Decock, B.; Conings, R.; Lenaerts, J.P.; Billiau, A.; Van Damme, J.
#journal Biochem. Biophys. Res. Commun. (1990) 167:904-909
#title Identification of the monocyte chemotactic protein from human osteosarcoma cells and monocytes: detection of a novel N-terminally processed form.
#cross-references MUID:90211336
#accession A34561
##molecule_type protein
##residues 29-53,'XX',36-52;82-92 ##label DEC
REFERENCE
#authors Li, Y.S.; Shyy, Y.J.; Wright, J.G.; Valente, A.J.; Cornhill, J.F.; Kolattukudy, P.E.
#journal Mol. Cell. Biochem. (1993) 126:61-68
#title The expression of monocyte chemotactic protein (MCP-1) in human vascular endothelium in vitro and in vivo.
#cross-references MUID:94150478
#accession I57488
##status translated from GB/EMBL/DBJ
##molecule_type mRNA
##residues 1-99 ##label LIT
#cross-references GB:569738; NID:9545464; PID:9545465
REFERENCE
#authors Ye, O.N.; Su, G.F.; Yuan, Y.; Huang, C.F.; Chinese J. Microbiol. Immunol. (1994) 14:29-32
#journal The PCR, cloning and sequencing of human monocyte chemottractant protein-1 (MCP-1) gene.
#accession JCI096
##molecule_type mRNA
##residues 24-28,'O',30-99 ##label YEO
GENETICS
#gene GDB:SCYA2
##cross-references GDB:125279; OMIM:158105
#map_position 17q11.2-17q12
CLASSIFICATION #superfamily macrophage inflammatory protein cytokine; glycoprotein; inflammation; pyroglutamic acid
KEYWORDS
FEATURES
1-23 #domain signal sequence #status predicted #label SIG
24-99 #product monocyte chemottractant protein 1 #status experimental #label MAT
29-99 #product monocyte chemottractant protein 1, short form #status experimental #label MAT
24 #modified site pyrrolidone carboxylic acid (Gln) (in mature form) #status experimental
37 #binding_site carbohydrate (Asn) (covalent) #status predicted
SUMMARY #length 99 #molecular-weight 11025 #checksum 7984
Query Match 100.0%; Score 53; DB 2; Length 99;
Best Local Similarity 100.0%; Pred. No. 1.25e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Db 79 KOKWQ 84
QY 1 KOKWQ 6
RESULT 3
ENTRY JC2336 #type complete
TITLE monocyte chemottractant protein-1 - bovine
ORGANISM #formal_name Bos primigenius indicus #common_name zebu cattle
DATE 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change 03-May-1996
ACCESSIONS JC2336
REFERENCE JC2336
#authors Wempe, F.; Kuhlmann, J.K.; Scheit, K.H.
#journal Biochem. Biophys. Res. Commun. (1994) 202:1272-1279
#title Characterization of the bovine monocyte chemottractant protein-1 gene.
#accession JC2336
##molecule_type protein
##residues 1-99 ##label WEM
GENETICS

#gene MCP-1
#introns 26/1: 65/2
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 99 #molecular-weight 11114 #checksum 9401
Query Match 100.0%; Score 53; DB 2; Length 99;
Best Local Similarity 100.0%; Pred. No. 1.25e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Db 79 KOKWQ 84
QY 1 KOKWQ 6
RESULT 4
ENTRY A39296 #type complete
TITLE monocyte chemottractant protein 1 precursor - bovine
ALTERNATE_NAMES monocyte chemotactic factor 1; seminal plasma protein p6
ORGANISM #formal_name Bos primigenius taurus #common_name cattle
DATE 03-Aug-1992 #sequence_revision 03-Aug-1992 #text_change 31-Oct-1997
ACCESSIONS A39296
REFERENCE A39296
#authors Wempe, F.; Henschen, A.; Scheit, K.H.
#journal DNA Cell Biol. (1991) 10:671-679
#title Gene expression and cDNA cloning identified a major basic protein constituent of bovine seminal plasma as bovine monocyte-chemottractant protein-1 (MCP-1).
#cross-references MUID:92096117
#accession A39296
##molecule_type mRNA
##residues 1-99 ##label WEM
#cross-references GB:M84602; GB:M85264; NID:9163394; PID:9163395
#accession B39296
##molecule_type protein
##residues 50-68,'X',70-74,'X',76 ##label W2
#experimental_source seminal vesicle
CLASSIFICATION #superfamily macrophage inflammatory protein glycoprotein
KEYWORDS
FEATURES
1-23 #domain signal sequence #status predicted #label SIG
24-99 #product monocyte chemottractant protein 1 #status predicted #label MAT
94 #binding_site carbohydrate (Asn) (covalent) #status predicted
SUMMARY #length 99 #molecular-weight 11114 #checksum 9401
Query Match 100.0%; Score 53; DB 2; Length 99;
Best Local Similarity 100.0%; Pred. No. 1.25e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Db 79 KOKWQ 84
QY 1 KOKWQ 6
RESULT 5
ENTRY I46857 #type complete
TITLE monocyte chemottractant protein-1 - rabbit
ORGANISM #formal_name Oryctolagus cuniculus #common_name domestic rabbit
DATE 14-Feb-1997 #sequence_revision 14-Feb-1997 #text_change 09-May-1997
ACCESSIONS I46857
REFERENCE I46857
#authors Yoshimura, T.; Yuhki, N.
#journal J. Immunol. (1991) 146:3483-3488
#title Neutrophil attractant/activation protein-1 and monocyte chemottractant protein-1 in rabbit: cDNA cloning and their expression in spleen cells.
#cross-references MUID:91225489
#accession I46857
##status preliminary; translated from GB/EMBL/DBJ

```
##molecule_type mRNA
##residues 1-125 ##label YOS
##cross-references GB:M57440; NID:q165469; PID:q165470
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 125 #molecular-weight 13776 #checksum 4498

Query Match 100.0%; Score 53; DB 2; Length 125;
Best Local Similarity 100.0%; Pred. No. 1.25e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 79 KOKWVO 84
|:|:|:|
OY 1 KOKWVO 6

RESULT 6
ENTRY E71437 #type complete
TITLE Probable resistance gene - Arabidopsis thaliana
ORGANISM #formal_name Arabidopsis thaliana
VARIETY Columbia
DATE 03-Aug-1998 #sequence_revision 03-Aug-1998 #text_change
03-Aug-1998

ACCESSIONS E71437
REFERENCE A71400
AUTHORS Bevan, M.; Bancroft, I.; Bent, E.; Llave, K.; Goodman, H.;
Stiekema, W.; Drost, L.; Ridley, P.; Hudson, S.A.; Patel,
K.; Murphy, G.; Piffanelli, P.; Wedler, H.; Wedler, E.;
Wambutt, R.; Weitzenegger, T.; Pohl, T.M.; Terry, N.;
Gielen, J.; Villarroel, R.; De Clerck, R.; Van Montagu, M.;
Lecharny, A.; Auborg, S.; Gy, I.; Kreis, M.; Lao, N.;
Kavanagh, T.; Hempel, S.; Kotter, P.; Ertan, K.D.; Rieger,
M.; Schaefer, M.; Funk, B.; Mueller-Auer, S.; Silvey, M.;
James, R.; Montfort, A.; Pons, A.; Pulgomenech, P.; Douka,
A.; Vouklatou, E.; Milioni, D.; Hatzopoulos, P.;
Pitavandi, E.; Obermayer, B.; Hilbert, H.; Duesterhoft, A.;
Moore, T.; Jones, J.D.G.; Eneva, T.; Palme, K.; Benes, V.;
Reichman, S.; Ansoorge, W.; Cooke, R.; Berger, C.; Delseny,
M.; Voet, M.; Volckaert, G.; Mewes, H.W.; Klotterman, S.;
Schueller, C.; Chalmatzis, N.
#journal Nature (1998) 391:485-488
#title Analysis of 1.9 Mb of contiguous sequence from chromosome 4
of Arabidopsis thaliana.
#cross-references MUID:98121113
#accession E71437
#status preliminary; nucleic acid sequence not shown;
translation not shown
#molecule_type DNA
#residues 1-192 ##label BEV
##cross-references GB:297342; NID:q2245031; PID:e327026; PID:q2245051
GENETICS
SUMMARY #map_position 4COP9-4G3845
#length 192 #molecular-weight 21535 #checksum 5065

Query Match 94.3%; Score 50; DB 2; Length 192;
Best Local Similarity 83.3%; Pred. No. 3.58e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 139 KOKWVO 144
|:|:|:|
OY 1 KOKWVO 6

RESULT 7
ENTRY JN0841 #type complete
TITLE Interleukin-8 - dog
ORGANISM #formal_name Canis lupus familiaris #common_name dog
DATE 19-May-1994 #sequence_revision 19-May-1994 #text_change
12-Apr-1995

ACCESSIONS JN0841
REFERENCE JN0841
AUTHORS Ishikawa, J.; Suzuki, S.; Hotta, K.; Hirota, Y.; Mizuno, S.;
Suzuki, K.
```

```
#journal Gene (1993) 131:305-306
#title Cloning of a canine gene homologous to the human
Interleukin-8-encoding gene.
#accession JN0841
#molecule_type DNA
#residues 1-95 ##label ISH
COMMENT This protein is a polymorphonuclear leukocytes chemotactic factor
and is involved in the host defense function.
GENETICS
#introns 22/1; 67/2
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 95 #molecular-weight 10611 #checksum 3157

Query Match 92.5%; Score 49; DB 2; Length 95;
Best Local Similarity 83.3%; Pred. No. 5.05e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 81 KKKWVO 86
|:|:|:|
OY 1 KKKWVO 6

RESULT 8
ENTRY I46871 #type complete
TITLE Interleukin-8 - rabbit
ALTERNATE_NAMES neutrophil attractant/activation protein-1
ORGANISM #formal_name Oryctolagus cuniculus #common_name domestic
rabbit
DATE 14-Feb-1997 #sequence_revision 14-Feb-1997 #text_change
09-Aug-1997

ACCESSIONS I46871; S13052
REFERENCE I46857
AUTHORS Yoshimura, T.; Yuhki, N.
#journal J. Immunol. (1991) 146:3483-3488
#title Neutrophil attractant/activation protein-1 and monocyte
chemoattractant protein-1 in rabbit: cDNA cloning and their
expression in spleen cells.
#cross-references MUID:91225489
#accession I46871
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-101 ##label YOS
##cross-references GB:M57439; NID:q165552; PID:q165553
REFERENCE S13052
AUTHORS Beaudien, B.C.; Collins, P.D.; Jose, P.J.; Totty, N.F.;
Hsuan, J.; Waterfield, M.D.; Williams, T.J.
#journal Biochem. J. (1990) 271:797-801
#title A novel neutrophil chemoattractant generated during an
inflammatory reaction in the rabbit peritoneal cavity in
vivo. Purification, partial amino acid sequence and
structural relationship to Interleukin 8.
#cross-references MUID:91058518
#accession S13052
#molecule_type protein
#residues 23-33, 'X', 35, 'X', 37-46, 'X', 48-49, 'I', 51-53 ##label BRA
CLASSIFICATION #superfamily beta-thromboglobulin
KEYWORDS cytokine
SUMMARY #length 101 #molecular-weight 11402 #checksum 1085

Query Match 92.5%; Score 49; DB 2; Length 101;
Best Local Similarity 83.3%; Pred. No. 5.05e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 81 KKKWVO 86
|:|:|:|
OY 1 KKKWVO 6

RESULT 9
ENTRY I46997 #type complete
TITLE Interleukin-8 - sheep
ORGANISM #formal_name Ovis sp. #common_name sheep
DATE 21-Feb-1997 #sequence_revision 21-Feb-1997 #text_change
```

09-May-1997
ACCESSIONS 146997
REFERENCE
#authors Seow, H.F.; Yoshimura, T.; Wood, P.R.; Colditz, I.G.
#journal Immunol. Cell Biol. (1994) 72:396-405
#title Cloning, sequencing, expression and inflammatory activity in skin of ovine interleukin-8.
#cross-references M0ID:95137691
#accession 146997
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-101 #label SEO
#cross-references GB:S74436; NID:g786590; PID:g786591
GENETICS
#gene oil-8
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 101 #molecular-weight 11292 #checksum 294
Query Match 92.5%; Score 49; DB 2; Length 101;
Best Local Similarity 83.3%; Pred. No. 5.05e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
Db 81 KKKWQ 86
1-11111
1 KKKWQ 6
RESULT 10
ENTRY S42496 #type complete
TITLE Interleukin 8 - sheep
ORGANISM #formal_name Ovis orientalis aries, Ovis ammon aries
#common_name domestic sheep
06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change
08-Sep-1997
S42496
ACCESSIONS S42496
REFERENCE S42496
#authors Legasnelois, I.; Greenland, T.; Arnaud, P.; Morner, J.F.; Cordier, G.
#submission submitted to the EMBL Data Library, March 1994
#description Nucleotide sequence of ovine interleukin 8 cDNA using polymerase chain reaction.
#accession S42496
#status preliminary
#molecule_type mRNA
#residues 1-101 #label LEG
#cross-references EMBL:X78306; NID:9463253; PID:9463254
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 101 #molecular-weight 11292 #checksum 294
Query Match 92.5%; Score 49; DB 2; Length 101;
Best Local Similarity 83.3%; Pred. No. 5.05e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
Db 81 KKKWQ 86
1-11111
1 KKKWQ 6
RESULT 11
ENTRY A53096 #type complete
TITLE Interleukin-8 precursor - pig
ORGANISM #formal_name Sus scrofa domestica #common_name domestic pig
02-Jun-1995 #sequence_revision 02-Jun-1995 #text_change
08-Sep-1997
A53096
ACCESSIONS A53096
REFERENCE A53096
#authors Lin, G.; Pearson, A.E.; Scamurra, R.W.; Zhou, Y.; Baarsch, M.J.; Weiss, D.J.; Murrain, M.P.
#journal J. Biol. Chem. (1994) 269:77-85
#title Regulation of interleukin-8 expression in porcine alveolar macrophages by bacterial lipopolysaccharide.
#accession A53096
#status preliminary

#molecule_type mRNA
#residues 1-103 #label LIN
#cross-references GB:M86923; NID:g164520; PID:g164521
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 103 #molecular-weight 11633 #checksum 8835
Query Match 92.5%; Score 49; DB 2; Length 103;
Best Local Similarity 83.3%; Pred. No. 5.05e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
Db 81 KKKWQ 86
1-11111
1 KKKWQ 6
RESULT 12
ENTRY A44253 #type complete
TITLE Alveolar macrophage chemotactic factor-I (AMCF-I)
ORGANISM #formal_name Sus scrofa domestica #common_name domestic pig
30-Apr-1993 #sequence_revision 18-Nov-1994 #text_change
23-Feb-1996
A44253
ACCESSIONS A44253
REFERENCE A44253
#authors Goodman, R.B.; Foster, D.C.; Mathewes, S.L.; Osborn, S.G.; Kulper, J.L.; Forstrom, J.W.; Martin, T.R.
#journal Biochemistry (1992) 31:10483-10490
#title Molecular cloning of porcine alveolar macrophage-derived neutrophil chemotactic factors I and II: identification of porcine IL-8 and another interleukin-alpha protein.
#cross-references M0ID:93041741
#accession A44253
#status preliminary
#molecule_type mRNA; protein
#residues 1-103 #label GOO
#experimental_source alveolar macrophage
#note sequence extracted from NCBI backbone (NCBIN:117415, NCBIP:117416)
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 103 #molecular-weight 11677 #checksum 8904
Query Match 92.5%; Score 49; DB 2; Length 103;
Best Local Similarity 83.3%; Pred. No. 5.05e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
Db 81 KKKWQ 86
1-11111
1 KKKWQ 6
RESULT 13
ENTRY S43424 #type complete
TITLE zipper containing protein - human
ORGANISM #formal_name Homo sapiens #common_name man
07-Sep-1994 #sequence_revision 10-Nov-1995 #text_change
10-Sep-1997
S43424
ACCESSIONS S43424
REFERENCE S43424
#authors Dixon, B.; Sahely, B.; Liu, L.; Pohajdak, B.
#journal Biochim. Biophys. Acta (1993) 1216:321-324
#title Cloning a cDNA from human NK/T cells which codes for an unusual leucine zipper containing protein.
#accession S43424
#status preliminary
#molecule_type mRNA
#residues 1-324 #label DIX
#cross-references GB:L06633; NID:g431327; PID:g431328
#note the authors translated the codon AGA for residue 304 as Lys, GGT for residue 305 as Gln, and GGT for residue 306 as Leu
SUMMARY #length 324 #molecular-weight 36318 #checksum 5888
Query Match 92.5%; Score 49; DB 2; Length 324;

```
Best Local Similarity 83.3%; Pred. No. 5.05e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
Db 151 KOKWVO 156
| | | | |
OY 1 KOKWVO 6

RESULT 14
ENTRY S76877 #type complete
TITLE hypotheical protein - Synechocystis sp. (strain PCC 6803)
ORGANISM #formal_name Synechocystis sp.
#variety PCC 6803
DATE 25-Apr-1997 #sequence_revision 25-Apr-1997 #text_change
21-Aug-1998
ACCESSIONS S76877
REFERENCE S74322
#authors Kaneko, T.; Sato, S.; Kotani, H.; Tanaka, A.; Asamizu, E.;
Sasamoto, Y.; Miyajima, N.; Hirose, M.; Sugita, M.;
Muraki, A.; Nakazaki, N.; Naito, K.; Okumura, S.; Shimo,
S.; Takeuchi, C.; Wada, T.; Watanabe, A.; Yamada, M.;
Yasuda, M.; Tabata, S.
#journal DNA Res. (1996) 3:109-136
#title Sequence analysis of the genome of the unicellular
cyanobacterium Synechocystis sp. PCC6803. II. Sequence
determination of the entire genome and assignment of
potential protein-coding regions.
#cross-references MIM:97061201
#accession S76877
#status nucleic acid sequence not shown; translation not shown
#molecule_type DNA
#residues 1-145 #label KAN
#cross-references EMBL:D80917; GB:AB001339; NID:g1653836; PID:d1019522;
PID:g1653879
#note the nucleotide sequence was submitted to the EMBL Data
Library, June 1996
GENETICS
#start_codon GTG
SUMMARY #length 145 #molecular-weight 16561 #checksum 5683
Query Match 88.7%; Score 47; DB 2; Length 145;
Best Local Similarity 66.7%; Pred. No. 9.89e+01;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
Db 61 KOKWVO 66
| | | | |
OY 1 KOKWVO 6

RESULT 15
ENTRY A56740 #type complete
TITLE sperm-egg recognition protein precursor - mouse
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE 08-Jul-1995 #sequence_revision 03-Aug-1995 #text_change
21-Aug-1998
ACCESSIONS A56740
REFERENCE A56740
#authors Bookbinder, L.H.; Cheng, A.; Bleil, J.D.
#journal Science (1995) 269:86-89
#title Tissue- and species-specific expression of sp56, a mouse
sperm fertilization protein.
#accession A56740
#status preliminary
#molecule_type mRNA
#residues 1-579 #label BOO
#cross-references GB:U17108; NID:g897562; PID:g897563
CLASSIFICATION #superfamily C4b-binding protein alpha chain; complement
factor H repeat homology
KEYWORDS fertilization; homomultimer; peripheral membrane protein;
sperm
FEATURE 1-32 #domain signal sequence #status predicted #label SIG\

34-91 #domain complement factor H repeat homology #label FH1\
96-133 #domain complement factor H repeat homology #label FH2\
158-218 #domain complement factor H repeat homology #label FH3\
223-278 #domain complement factor H repeat homology #label FH4\
283-345 #domain complement factor H repeat homology #label FH5\
349-411 #domain complement factor H repeat homology #label FH6\
456-509 #domain complement factor H repeat homology #label FH7\
SUMMARY #length 579 #molecular-weight 64950 #checksum 4531
Query Match 88.7%; Score 47; DB 2; Length 579;
Best Local Similarity 66.7%; Pred. No. 9.89e+01;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
Db 556 KOKWVO 561
| | | | |
OY 1 KOKWVO 6

RESULT 16
ENTRY S73558 #type complete
TITLE phosphate transport system permease protein psta - Mycoplasma
pneumoniae (ATCC 29342) (SGC3)
ALTERNATE_NAMES hypotheical protein C12.orf651V
ORGANISM #formal_name Mycoplasma pneumoniae
#variety ATCC 29342
DATE 27-Feb-1997 #sequence_revision 25-Apr-1997 #text_change
04-Sep-1998
ACCESSIONS S73558
REFERENCE S73327
#authors Himmelfrich, R.; Hilbert, H.; Plagens, H.; Pirk, E.; Li,
B.C.; Herrmann, R.
#journal Nucleic Acids Res. (1996) 24:4420-4449
#title Complete sequence analysis of the genome of the bacterium
Mycoplasma pneumoniae.
#cross-references MIM:97105885
#accession S73558
#status preliminary; nucleic acid sequence not shown;
translation not shown
GENETICS
#molecule_type DNA
#residues 1-651 #label HIM
#cross-references EMBL:AE000023; GB:U00089; NID:g1673893; PID:g1673899
#note the nucleotide sequence was submitted to the EMBL Data
Library, November 1996
CLASSIFICATION #superfamily periplasmic phosphate permease AG88
SUMMARY #length 651 #molecular-weight 72747 #checksum 725
Query Match 88.7%; Score 47; DB 2; Length 651;
Best Local Similarity 83.3%; Pred. No. 9.89e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
Db 635 KOKWVO 640
| | | | |
OY 1 KOKWVO 6

RESULT 17
ENTRY JC2478 #type complete
TITLE eotaxin - rat
ORGANISM #formal_name Rattus norvegicus #common_name Norway rat
DATE 21-Feb-1995 #sequence_revision 05-Apr-1995 #text_change
08-Sep-1997
ACCESSIONS JC2478
REFERENCE JC2478
#authors Jose, P.J.; Adcock, I.M.; Griffiths-Johnson, D.A.; Berkman,
N.; Wells, T.N.C.; Williams, T.J.; Power, C.A.
#journal Biochem. Biophys. Res. Commun. (1994) 205:768-794
#title Biochem: Cloning of an eosinophil chemoattractant cytokine
and increased mRNA expression in allergen-challenged
guinea-pig lungs.
```

#accession JC2478
#molecule_type mRNA
#residues 1-96 #label JOS
#cross-references EMBL:X77603; NID:9602551; PID:9602552
COMMENT This protein is identified as a potent eosinophil chemoattractant.
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS glycoprotein
FEATURE
1-23 #domain signal sequence #status predicted #label SIG\
24-96 #product eotaxin #status predicted #label MAT\
93 #binding site carbohydrate (Thr) (covalent) #status predicted
SUMMARY #length 96 #molecular-weight 10695 #checksum 7329

Query Match 86.8%; Score 46; DB 2; Length 96;
Best Local Similarity 83.3%; Pred. No. 1.38e+02;
Matches 5; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 76 KKKWQ 81
QY 1 KKKWQ 6

RESULT 18
ENTRY I48099 #type complete
TITLE eotaxin precursor - guinea pig
ORGANISM #formal_name Cavia porcellus #common_name guinea pig
DATE 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 09-May-1997
ACCESSION I48099
REFERENCE I48099
#authors Rothenberg, M.E.; Luster, A.D.; Lilly, C.M.; Drazen, J.M.; Leder, P.
#journal J. Exp. Med. (1995) 181:1211-1216
#title Constitutive and allergen-induced expression of eotaxin mRNA in the guinea pig lung.
#cross-references MVID:95173589
#accession I48099
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-96 #label RES
#cross-references EMBL:U18941; NID:9687655; PID:9687656
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 96 #molecular-weight 10753 #checksum 7336

Query Match 86.8%; Score 46; DB 2; Length 96;
Best Local Similarity 83.3%; Pred. No. 1.38e+02;
Matches 5; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 76 KKKWQ 81
QY 1 KKKWQ 6

RESULT 19
ENTRY JC2417 #type complete
TITLE monocyte chemoattractant protein-2 - pig
ORGANISM #formal_name Sus scrofa domestica #common_name domestic pig
DATE 24-Feb-1995 #sequence_revision 24-Feb-1995 #text_change 03-May-1996
ACCESSION JC2417
REFERENCE JC2417
#authors Hosang, K.; Knoke, I.; Klaudiny, J.; Wempe, F.; Wutke, W.; Scheit, K.H.
#journal Biochem. Biophys. Res. Commun. (1994) 205:148-153
#title Porcine interleukin cells express monocyte chemoattractant protein-2 (MCP-2): Analysis by cDNA cloning and northern analysis.
#accession JC2417
#molecule_type mRNA
#residues 1-99 #label HOS
#experimental_source corpus luteum
CLASSIFICATION #superfamily macrophage inflammatory protein

FEATURE
1-23 #domain signal sequence #status predicted #label SIG\
24-99 #product monocyte chemoattractant protein-2 #status predicted #label MAT
SUMMARY #length 99 #molecular-weight 10903 #checksum 7556

Query Match 86.8%; Score 46; DB 2; Length 99;
Best Local Similarity 100.0%; Pred. No. 1.38e+02;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 80 OKWQ 84
QY 2 OKWQ 6

RESULT 20
ENTRY I48148 #type complete
TITLE Neutrophil attractant protein-1 - guinea pig
ORGANISM #formal_name Cavia porcellus #common_name guinea pig
DATE 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 23-Feb-1997
ACCESSION I48148
REFERENCE I48148
#authors Yoshimura, T.; Johnson, D.G.
#journal J. Immunol. (1993) 151:6225-6236
#title cDNA cloning and expression of guinea pig neutrophil attractant protein-1 (NAP-1): NAP-1 is highly conserved in guinea pig.
#cross-references MVID:94065176
#accession I48148
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type DNA
#residues 1-101 #label RES
#cross-references GB:L04986; NID:9459764; PID:9459765
GENETICS #gene NAP-1
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 101 #molecular-weight 11414 #checksum 2363

Query Match 86.8%; Score 46; DB 2; Length 101;
Best Local Similarity 83.3%; Pred. No. 1.38e+02;
Matches 5; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 81 KKKWQ 86
QY 1 KKKWQ 6

RESULT 21
ENTRY A54678 #type complete
TITLE monocyte chemotactic protein 3 precursor - human
ALTERNATE_NAMES monocyte chemoattractant protein MCP-3
ORGANISM #formal_name Homo sapiens #common_name man
DATE 28-Oct-1994 #sequence_revision 28-Oct-1994 #text_change 24-Sep-1998
ACCESSION A54678; JC1478; S32222
REFERENCE A54678
#authors Odenakker, G.; Fiten, P.; Nys, G.; Froyen, G.; Van Roy, N.; Speleman, F.; Laureys, G.; Van Damme, J.
#journal Genomics (1994) 21:403-408
#title The human MCP-3 gene (SCYA7): cloning, sequence analysis, and assignment to the C-C chemokine gene cluster on chromosome 17q11.2-q12.
#accession A54678
#molecule_type DNA
#residues 1-109 #label OPD
#cross-references GB:X72309
REFERENCE JC1478
#authors Odenakker, G.; Froyen, G.; Fiten, P.; Proost, P.; Van Damme, J.
#journal Biochem. Biophys. Res. Commun. (1993) 191:535-542
#title Human monocyte chemotactic protein-3 (MCP-3): Molecular cloning of the cDNA and comparison with other chemokines.

#accession JC1478
##molecule_type mRNA
##residues 1-109 ##label OP2
REFERENCE S32222
#authors Minty, A.; Chalon, P.; Guillemet, J.C.; Kaghad, M.; Llaunay, P.; Magazin, M.; Miloux, B.; Minty, C.; Ramond, P.; Vita, N.; Luper, J.; Shire, D.; Ferrara, P.; Caput, D.
#submission submitted to the EMBL Data Library, March 1993
#description Molecular cloning of MCP-3: a human monocyte-derived monocyte chemotactic protein.
#accession S32222
##molecule_type mRNA
##residues 1-109 ##label MIN
#cross-references EMBL:X1087; NID:g288396; PID:g288397
COMMENT This protein induces proteinase secretion and chemotaxis by macrophages and monocytes.
GENETICS
#gene GDB:SCYA7; SCYA6; MCP-3
##cross-references GDB:138473; OMIM:158106
#map_position 17q11-17q12
#intron 36/1: 75/2
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS cytokine; glycoprotein; inflammation
FEATURE
1-33 #domain signal sequence #status predicted #label SIG
34-109 #product monocyte chemotactic protein 3 #status predicted #label MAT
#binding-site carbohydrate (asn) (covalent) #status predicted
39 #length 109 #molecular-weight 12356 #checksum 1535
SUMMARY
Query Match 86.8%; Score 46; DB 2; Length 109;
Best Local Similarity 100.0%; Pred. No. 1.38e+02;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Db 90 QKWQ 94
|||||
OY 2 QKWQ 6

RESULT 22
ENTRY I48147 #type complete
TITLE monocyte chemotactic protein-1 - guinea pig
ORGANISM #formal_name Cavia porcellus #common_name guinea pig
DATE 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 09-May-1997
ACCESSIONS I48147
REFERENCE I48147
#authors Yoshimura, T.
#journal J. Immunol. (1993) 150:5025-5032
#title CDNA cloning of guinea pig monocyte chemotactic protein-1 and expression of the recombinant protein.
#cross-references MUID:93267104
#accession I48147
##status preliminary; translated from GB/EMBL/DBJ
##molecule_type mRNA
##residues 1-120 ##label RES
##cross-references GB:I04985; NID:g349820; PID:g349821
GENETICS
#gene MCP-1
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 120 #molecular-weight 13741 #checksum 9252
Query Match 86.8%; Score 46; DB 2; Length 120;
Best Local Similarity 100.0%; Pred. No. 1.38e+02;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Db 78 QKWQ 82
|||||
OY 2 QKWQ 6

RESULT 23

ENTRY C71317 #type complete
TITLE hypothetical protein TP0503 - syphilis spirochete
ORGANISM #formal_name Treponema pallidum subsp. pallidum #common_name syphilis spirochete
DATE 24-Jul-1998 #sequence_revision 24-Jul-1998 #text_change 07-Aug-1998
ACCESSIONS C71317
REFERENCE A71250
#authors Fraser, C.M.; Norris, S.J.; Weinstock, G.M.; White, O.; Sutton, G.G.; Dodson, R.; Gwin, M.; Hickey, E.K.; Clayton, R.; Ketchum, K.A.; Sodergren, E.; Hardham, J.M.; McLeod, M.P.; Salzberg, S.; Peterson, J.; Khalak, H.; Richardson, D.; Howell, J.R.; Chidambaram, M.; Uitterback, T.; McDonald, L.; Artach, P.; Bowman, C.; Cotton, M.D.; Fujii, C.; Garland, S.; Hatch, B.; Horst, K.; Roberts, K.; Wathey, L.; Weidman, J.; Smith, H.O.; Venter, J.C.
#journal Science (1998) 281:375-388
#title Complete genome sequence of Treponema pallidum, the syphilis spirochete.
#accession C71317
##status preliminary; nucleic acid sequence not shown; translation not shown
##molecule_type DNA
##residues 1-187 ##label COL
##cross-references GB:AE001226; GB:AE000520; NID:g3322785; PID:g3322795
##experimental_source strain Nichols
GENETICS
#gene TP0503
SUMMARY #length 187 #molecular-weight 21410 #checksum 5750
Query Match 86.8%; Score 46; DB 2; Length 187;
Best Local Similarity 100.0%; Pred. No. 1.38e+02;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Db 37 QKWQ 41
|||||
OY 2 QKWQ 6

RESULT 24
ENTRY D70452 #type complete
TITLE leucyl-tRNA synthetase beta subunit - Aquifex aeolicus
ORGANISM #formal_name Aquifex aeolicus
DATE 08-May-1998 #sequence_revision 08-May-1998 #text_change 24-Sep-1998
ACCESSIONS D70452
REFERENCE A70300
#authors Decker, G.; Warren, P.V.; Gaasterland, T.; Young, W.G.; Lenox, A.L.; Graham, D.E.; Overbeek, R.; Sneed, M.A.; Keller, M.; Aujay, M.; Huber, R.; Feldman, R.A.; Short, J.M.; Olson, G.J.; Swanson, R.V.
#journal Nature (1998) 392:353-358
#title The complete genome of the hyperthermophilic bacterium Aquifex aeolicus.
#cross-references MUID:98196666
#accession D70452
##status preliminary; nucleic acid sequence not shown; translation not shown
##molecule_type DNA
##residues 1-289 ##label AOF
##cross-references GB:AE000755; NID:g2984063; PID:g2984068; GB:AE000657
##experimental_source strain VF5
GENETICS
#gene leuS
KEYWORDS aminoacyl-tRNA synthetase; protein biosynthesis
SUMMARY #length 289 #molecular-weight 33535 #checksum 8262
Query Match 86.8%; Score 46; DB 2; Length 289;
Best Local Similarity 100.0%; Pred. No. 1.38e+02;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Db 265 QKWQ 269
|||||

OY 2 KOKWQ 6

RESULT 25
ENTRY G71228 #type complete
TITLE hypothetical protein PH0089 - Pyrococcus horikoshii
ORGANISM #formal_name Pyrococcus horikoshii
DATE 14-Aug-1998 #sequence_revision 14-Aug-1998 #text_change 14-Aug-1998

ACCESSIONS
REFERENCE A71000
#authors Kawarabayashi, Y.; Sawada, M.; Horikawa, H.; Halkawa, Y.; Hino, Y.; Yamamoto, S.; Sekine, M.; Baba, S.; Kosugi, H.; Hosoyama, A.; Nagai, Y.; Sakai, M.; Ogura, K.; Otsuka, R.; Nakazawa, H.; Takamiya, M.; Ohtoku, Y.; Funahashi, T.; Tanaka, T.; Kudoh, Y.; Yamazaki, J.; Kishida, N.; Oguchi, A.; Aoki, K.; Yoshizawa, T.; Nakamura, Y.; Robb, F.T.; Horikoshi, K.; Masuchi, Y.; Shizuya, H.; Kikuchi, H.

#journal DNA Res. (1998) 5:55-76
#title Complete sequence and gene organization of the genome of a hyper-thermophilic archaeobacterium, Pyrococcus horikoshii OT3.

#accession G71228
#status preliminary: nucleic acid sequence not shown; translation not shown

#molecule_type DNA
#residues 1-334 #label RAW
#cross-references GB:AP000001; NID:g3236128; PID:d1030101; PID:g3256475
#experimental_source strain OT3
#note this accession replaces an interim accession for a sequence replaced by GenBank

GENETICS
#gene PH0089
SUMMARY #length 334 #molecular-weight 36602 #checksum 4643

Query Match 86.8%; Score 46; DB 2; Length 334;
Best Local Similarity 66.7%; Pred. No. 1.38e+02;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 290 KKKWVH 295
1-1111
1 KOKWQ 6

RESULT 26
ENTRY E64019 #type complete
TITLE hypothetical protein HI1054 - Haemophilus influenzae (strain Rd KW20)
ORGANISM #formal_name Haemophilus influenzae
DATE 18-Aug-1995 #sequence_revision 18-Aug-1995 #text_change 10-Oct-1997

ACCESSIONS
REFERENCE E64000
#authors Fleischmann, R.D.; Adams, M.D.; White, O.; Clayton, R.A.; Kirkness, E.F.; Kerlavage, A.R.; Bult, C.J.; Tomb, J.F.; Dougherty, B.A.; Merrick, J.M.; McInerney, K.; Sutton, G.; Fitzhugh, W.; Fields, C.; Gocayne, J.D.; Scott, J.; Shirley, R.; Liu, L.I.; Glodek, A.; Kelley, J.M.; Weidman, J.F.; Phillips, C.A.; Spriggs, T.; Hedblom, E.; Cotton, M.D.; Utterback, T.R.; Hanna, M.C.; Nguyen, D.T.; Saudak, D.M.; Brandon, R.C.; Fine, L.D.; Fitchman, J.L.; Fuhmann, J.L.; Geoghegan, N.S.M.; Gnehm, C.L.; McDonald, L.A.; Small, K.V.; Fraser, C.M.; Smith, H.O.; Venter, J.C.

#journal Science (1995) 269:496-512
#title Whole-genome random sequencing and assembly of Haemophilus influenzae Rd.
#accession E64019
#cross-references MIMD:95350630.
#status nucleic acid sequence not shown; translation not shown
#molecule_type DNA
#residues 1-460 #label TIGR
#cross-references GB:U32786; GB:I42023; NID:g1574605; PID:g1574617; TIGR:HI1054

SUMMARY #length 460 #molecular-weight 53471 #checksum 5243

Query Match 86.8%; Score 46; DB 2; Length 460;
Best Local Similarity 100.0%; Pred. No. 1.38e+02;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 288 KOKWV 292
1-1111
1 KOKWQ 5

RESULT 27
ENTRY E64368 #type complete
TITLE hypothetical protein homolog MJ0549 - Methanococcus jannaschii
ORGANISM #formal_name Methanococcus jannaschii
DATE 13-Sep-1996 #sequence_revision 13-Sep-1996 #text_change 13-Sep-1998

ACCESSIONS
REFERENCE E64368
#authors Bult, C.J.; White, O.; Olsen, G.J.; Zhou, L.; Fleischmann, R.D.; Sutton, G.G.; Blake, J.A.; Fitzgerald, L.M.; Clayton, R.A.; Gocayne, J.D.; Kerlavage, A.R.; Dougherty, B.A.; Tomb, J.F.; Adams, M.D.; Reisch, C.I.; Overbeek, R.; Kirkness, E.F.; Weinstock, K.G.; Merrick, J.M.; Glodek, A.; Scott, J.L.; Geoghegan, N.S.M.; Weidman, J.F.; Fuhmann, J.L.; Nguyen, D.; Utterback, T.R.; Kelley, J.M.; Peterson, J.D.; Sadow, P.W.; Hanna, M.C.; Cotton, M.D.; Roberts, K.M.; Hurst, M.A.; Kaine, B.P.; Borodovsky, M.; Klenk, H.P.; Fraser, C.M.; Smith, H.O.; Woese, C.R.; Venter, J.C.

#journal Science (1996) 273:1058-1073
#title Complete genome sequence of the methanogenic archaeon, Methanococcus jannaschii.
#accession E64368
#cross-references MIMD:96337999
#status preliminary: nucleic acid sequence not shown; translation not shown

#molecule_type DNA
#residues 1-141 #label BUL
#cross-references GB:U67504; GB:L77117; NID:g1591248; PID:g1591254; TIGR:MJ0549; PID:g1510625

GENETICS
#map_position FOR485581-486006
CLASSIFICATION #superfamily conserved hypothetical protein MJ0080
SUMMARY #length 141 #molecular-weight 16132 #checksum 6417

Query Match 84.9%; Score 45; DB 2; Length 141;
Best Local Similarity 50.0%; Pred. No. 1.90e+02;
Matches 3; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Db 45 KKKWVH 50
1-1111
1 KOKWQ 6

RESULT 28
ENTRY F69804 #type complete
TITLE hypothetical protein yfif - Bacillus subtilis
ORGANISM #formal_name Bacillus subtilis
DATE 05-Dec-1997 #sequence_revision 05-Dec-1997 #text_change 24-Sep-1998

ACCESSIONS
REFERENCE F69804
#authors Kunst, F.; Ogasawara, N.; Moszer, I.; Albertini, A.M.; Alloni, G.; Azevedo, V.; Bartero, M.G.; Bessieres, P.; Bolotin, A.; Borchert, S.; Boriss, R.; Bousier, L.; Brans, A.; Braun, M.; Brignell, S.C.; Bron, S.; Brouillet, S.; Brusch, C.V.; Caldwell, B.; Capuano, V.; Carter, N.M.; Choi, S.K.; Codani, J.J.; Conerton, J.F.; Cummings, N.J.; Daniel, R.A.; Denizot, F.; Devigne, K.M.; Duesterhoeft, J.; Ehrlich, S.D.; Emerson, P.T.; Entian, K.D.; Errington, J.; Fabret, C.; Ferrari, E.; Fouger, D.; Filtz, C.; Fujita, M.; Fujita, Y.; Fuma, S.; Gallizzi, A.; Galleron, N.; Ghim,

S.Y.: Glaser, P.; Goffeau, A.; Gollightly, E.J.; Grandt, G.; Guisepi, G.; Guy, B.J.; Haga, K.; Haelech, J.; Harwood, C.R.; Henaut, A.; Hilbert, H.; Holsappel, S.; Hosono, S.; Hullo, M.F.; Itaya, M.; Jones, L.; Joris, B.; Karamata, D.; Kashara, Y.; Klier-Blanchard, M.; Klein, C.; Kobayashi, Y.; Koetter, P.; Koningsstein, G.; Krogh, S.; Kumano, M.; Kurita, K.; Lapidus, A.; Lardinois, S.; Lauber, J.; Lazarevic, V.; Lee, S.M.; Levine, A.; Liu, H.; Masuda, S.; Mausel, C.; Medigue, C.; Medina, N.; Mellado, R.P.; Mizuno, M.; Moestl, D.; Nakai, S.; Noback, M.; Noone, D.; O'Reilly, M.; Ogawa, K.; Ogihara, A.; Oudega, B.; Park, S.H.; Parro, V.; Pohl, T.M.; Portetelle, D.; Porwollik, S.; Prescott, A.M.; Prescan, E.; Pujic, P.; Punnett, B.; Rapoport, G.; Rey, M.; Reynolds, S.; Rieger, M.; Rivolta, C.; Rooba, E.; Roche, B.; Rose, M.; Sadale, Y.; Sato, T.; Scanlon, E.; Schleich, S.; Schroeder, R.; Scoffone, F.; Sekiguchi, J.; Sekowska, A.; Seror, S.J.; Serro, P.; Shin, B.S.; Soldo, B.; Sorokin, A.; Tacconi, E.; Takagi, T.; Takahashi, H.; Takemaru, K.; Takeuchi, M.; Tamakoshi, A.; Tanaka, T.; Terstra, P.; Tognoni, A.; Toosto, V.; Uchiyama, S.; Vandenbol, M.; Vannier, F.; Vassartoli, A.; Viali, A.; Wandut, R.; Wedler, E.; Wedler, H.; Weitzenecker, T.; Winters, P.; Wipat, A.; Yamamoto, H.; Yamane, K.; Yasumoto, K.; Yata, K.; Yoshida, K.; Yoshikawa, H.F.; Zumbstein, E.; Yoshikawa, H.; Danchin, A.

#journal Nature (1997) 390:249-256
#title The complete genome sequence of the Gram-positive bacterium *Bacillus subtilis*.
#cross-references M01D:98044033
#accession F69804
#status preliminary: nucleic acid sequence not shown; translation not shown

##molecule-type DNA
##residues 1-178 ##label KUN
##cross-references GB:Z99108; GB:EL009126; NID:q2633055; PID:e1182829; PID:q2633163
##experimental_source strain 168

GENETICS
#gene yfiT
SUMMARY #length 178 #molecular-weight 20666 #checksum 340

Query Match 84.9%; Score 45; DB 2; Length 178;
Best Local Similarity 66.7%; Pred. No. 1.90e+02;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 24 KDKWQ 29
1 1 1 1 1
QY 1 KOKWQ 6

RESULT 29
ENTRY A11437
TITLE Probable resistance gene - *Arabidopsis thaliana*
ORGANISM #formal_name *Arabidopsis thaliana*
#variety Columbia
DATE 03-Aug-1998 #sequence_revision 03-Aug-1998 #text_change 03-Aug-1998
A11437
A11400
A11400

ACCESSIONS
REFERENCE #authors Bevan, M.; Bancroft, I.; Bent, E.; Love, K.; Goodman, H.; Dean, C.; Bergkamp, R.; Dirkse, W.; Van Staveren, M.; Stiekema, W.; Drost, L.; Ridley, P.; Hudson, S.A.; Patel, K.; Murphy, G.; Piffanelli, P.; Wedler, H.; Wedler, E.; Wandut, R.; Weitzenecker, T.; Pohl, T.M.; Terry, N.; Gielem, J.; Villarroel, R.; De Clerck, R.; Van Montagu, M.; Lecharny, A.; Auborg, S.; Gy, I.; Kreis, M.; Lao, N.; Kavanagh, T.; Hempel, S.; Kotter, P.; Entian, K.D.; Rieger, M.; Schaeffer, M.; Funk, B.; Mueller-Auer, S.; Silvey, M.; James, R.; Montfort, A.; Pons, A.; Pulidomenach, P.; Douka, A.; Voukietou, E.; Milioni, D.; Hatzopoulos, P.; Piravandi, E.; Obermaier, B.; Hilbert, H.; Duesterhoft, A.; Moores, T.; Jones, J.D.G.; Eneva, T.; Palme, K.; Benes, V.; Rechman, S.; Ansoorge, W.; Cooke, R.; Berger, C.; Delseny,

M.; Voet, M.; Volckaert, G.; Mewes, H.W.; Klosterman, S.; Schueller, C.; Chalyvaris, N.
#journal Nature (1998) 391:485-488
#title Analysis of 1.9 Mb of contiguous sequence from chromosome 4 of *Arabidopsis thaliana*.
#cross-references M01D:98121113
#accession A11437
##status preliminary: nucleic acid sequence not shown; translation not shown

##molecule-type DNA
##residues 1-1038 ##label BEV
##cross-references GB:Z97342; NID:q2245031; PID:e327023; PID:q2245047

GENETICS
#map_position 4COP9-4G3845
SUMMARY #length 1038 #molecular-weight 117379 #checksum 3349

Query Match 84.9%; Score 45; DB 2; Length 1038;
Best Local Similarity 66.7%; Pred. No. 1.90e+02;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 135 KOKWQ 140
1 1 1 1 1
QY 1 KOKWQ 6

RESULT 30
ENTRY S19497
TITLE hypothetical protein YCR082w - yeast (*Saccharomyces cerevisiae*)
ORGANISM #formal_name *Saccharomyces cerevisiae*
DATE 31-Mar-1992 #sequence_revision 31-Mar-1992 #text_change 14-Nov-1997
S19497
S19429
REFERENCE Feldmann, H.; Mannhaupt, G.; Vetter, I.
#authors submitted to the Protein Sequence Database, March 1992
#accession S19497
##molecule-type DNA
##residues 1-128 ##label FEL
##cross-references EMBL:X59720; NID:q1907116; PID:e264569; PID:q1907219; MIPS:YCR082w

GENETICS
#map_position 3R
SUMMARY #length 128 #molecular-weight 15117 #checksum 7537

Query Match 83.0%; Score 44; DB 2; Length 128;
Best Local Similarity 80.0%; Pred. No. 2.62e+02;
Matches 4; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 88 KOKWI 92
1 1 1 1 1
QY 1 KOKWV 5

Search completed: Thu Apr 1 07:32:52 1999
Job time : 29 secs.


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97 41 77.4 701 1 UBF2 XENIA NUCLEOTAR TRANSCRIPTIO 3.51e+02
98 41 77.4 745 1 YOA4_CAEEL HYPOTHETICAL 85.5 KD Z 3.51e+02
99 41 77.4 929 1 YD6_SCHPO HYPOTHETICAL 105.1 KD 3.51e+02
100 41 77.4 3027 1 POLG_PPYVL GENOME POLYPROTEIN (CO 3.51e+02

ALIGNMENTS

RESULT 1
ID MCPI_HUMAN STANDARD; PRT; 99 AA.
AC P13500;
DT 01-JAN-1990 (REL. 13, CREATED)
DT 01-JAN-1990 (REL. 13, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE CHEMOTACTIC
DE AND ACTIVATING FACTOR) (MCAF) (MONOCYTE SECRETORY PROTEIN 1)
DE (MONOCYTE CHEMOTACTIC PROTEIN 1) (HC11) (SMALL INDUCIBLE CYTOKINE
DE A2).
GN SCYA2 OR MCP1.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUHERIA; PRIMATES.
RN [1]
RX MEDLINE: 89165862.
RA FURUTANI Y., NOMURA H., NOTAKE M., OYAMADA Y., FUKUI T., YAMADA M.,
RA LARSEN C.G., OPPENHEIM J.J., MATSUSHITA K.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 159:249-255(1989).
RN [2]
RX MEDLINE: 90097880.
RA ROLLINS B.J., STIER P., ERNST T., WONG G.G.;
RL MOL. CELL. BIOL. 9:4687-4695(1989).
RN [3]
RX MEDLINE: 89153605.
RA YOSHIMURA T., YUHKI N., MOORE S.K., APPELLA E., LERMAN M.I.,
RA LEONARD E.J.;
RL FEBS LETT. 244:487-493(1989).
RN [4]
RX MEDLINE: 90290466.
RA SHY Y.J., LI Y.S., KOLATUKUDY P.E.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 169:346-351(1990).
RN [5]
RX MEDLINE: 91207938.
RA CHANG H.C., HSU F., FREEMAN G.J., GRIFFIN J.D., REINHERZ E.L.;
RL INT. IMMUNOL. 1:388-399(1989).
RN [6]
RX MEDLINE: 94150478.
RA LI Y.S., SHY Y.J., WRIGHT J.G., VALENTE A.J., CORNHILL J.F.,
RA KOLATUKUDY P.E.;
RL MOL. CELL. BIOPHYS. 126:61-68(1993).
RN [7]
RX MEDLINE: 92095166.
RA YOSHIMURA T., LEONARD E.J.;
RL ADV. EXP. MED. BIOL. 305:47-56(1991).
RN [8]
RX MEDLINE: 89184525.
RA ROBINSON E.A., YOSHIMURA T., LEONARD E.J., TANAKA S., GRIFFIN P.R.,
RA SHABANOWITZ J., HUNT D.F., APPELLA E.;
RL PROC. NATL. ACAD. SCI. U.S.A. 86:1850-1854(1989).
RN [9]
RX MEDLINE: 90211336.
RA DECOCK B., CONINGS R., LENAERTS J.-P., BILIAU A., VAN DAMME J.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 167:904-909(1990).
RN [10]
RX 3D-STRUCTURE MODELLING.

RX MEDLINE: 91312872.
RA GRONENBORN A.M., CLORE G.M.;
RL PROTEIN ENG. 4:263-269(1991).
RN [11]
RX X-RAY CRYSTALLOGRAPHY (1.85 ANGSTROMS).
RA MEDLINE: 97143315.
RA LUBROWSKI J., BUGACZ G., DOMAILLE P.J., HANDEL T.M., WLODANER A.;
RL NAT. STRUCT. BIOL. 4:64-69(1997).
RN [12]
RX STRUCTURE BY NMR.
RA MEDLINE: 96234959.
RA HANDEL T.M., DOMAILLE P.J.;
RL BIOCHEMISTRY 35:6569-6584(1996).
RN [13]
RX EFFECT OF DELETION OF N-TERMINAL RESIDUES.
RA MEDLINE: 96195223.
RA WEBER M., UGCCIONI M., BAGGIOLINI M., CLARK-LEWIS I., DAHINDEN C.A.;
RL J. EXP. MED. 183:681-685(1996).
RN [14]
RX MTOGENESIS.
RA MEDLINE: 94253189.
RA ZHANG Y.J., RUTLEDGE B.J., ROLLINS B.J.;
RL J. BIOL. CHEM. 269:15918-15924(1994).
RN [15]
RX SUBUNIT.
RA MEDLINE: 97053697.
RA KIM K.-S., RAJARATHNAM K., CLARK-LEWIS I., SYKES B.D.;
RL FEBS LETT. 395:277-282(1996).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND BASOPHILS
CC BUT NOT NEUTROPHILS OR EOSINOPHILS. AUGMENTS MONOCYTE ANTI-TUMOR
CC ACTIVITY. HAS BEEN IMPLICATED IN THE PATHOGENESIS OF DISEASES
CC CHARACTERIZED BY MONOCYTIC INFILTRATES, LIKE PSORIASIS, RHEUMATOID
CC ARTHRITIS OR ATHEROSCLEROSIS. MAY BE INVOLVED IN THE RECRUITMENT
CC OF MONOCYTES INTO THE ARTERIAL WALL DURING THE DISEASE PROCESS OF
CC ATHEROSCLEROSIS.
CC -1- SUBUNIT: MONOMER OR HOMODIMER: IN EQUILIBRIUM.
CC -1- PM: PROCESSING AT THE N-TERMINUS CAN REGULATE RECEPTOR AND TARGET
CC CELL SELECTIVITY. DELETION OF THE AMINO-TERMINAL RESIDUE CONVERTS
CC IT FROM AN ACTIVATOR OF BASOPHIL TO AN EOSINOPHIL CHEMOTACTANT.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
CC EMBL: M31626; G386961; -.
DR EMBL: M30816; G386961; JOINED.
DR EMBL: M31625; G386961; JOINED.
DR EMBL: M24545; G307163; -.
DR EMBL: M28226; G338009; -.
DR EMBL: X14768; G34514; -.
DR EMBL: M37719; G487124; -.
DR EMBL: M28225; G338007; -.
DR EMBL: M28223; G338007; JOINED.
DR EMBL: M28224; G338007; JOINED.
DR EMBL: S69738; G545465; -.
DR EMBL: S71513; G240868; -.
DR EMBL: A17786; G641145; -.
DR PIR: A35474; A35474.
DR PIR: S03339; S03339.
DR PDB: 1DOK; 12-MAR-97.
DR PDB: 1DOL; 12-MAR-97.
DR PDB: 1DOM; 14-OCT-96.
DR PDB: 1DON; 14-OCT-96.
DR PDB: 1MCA; 15-OCT-94.
DR MIM: 158105; -.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; 3D-STRUCTURE.
FT SIGNAL 1 23
FT CHAIN 24 99
FT MOD_RES 24 24
FT DISULFID 34 39
FT CARBOHYD 37 37
FT VARIANT 76 76
FT MUTAGEN 24 24
FT MTOGEN 25 32

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F1 MUTAGEN 24 85 MISSING: 90% REDUCTION IN ACTIVITY.
 F1 MUTAGEN 24 91 MISSING: 83% REDUCTION IN ACTIVITY.
 FT MUTAGEN 26 26 D->A: 90% REDUCTION IN ACTIVITY.
 FT MUTAGEN 29 29 N->A: 50% REDUCTION IN ACTIVITY.
 FT MUTAGEN 47 47 R->F: 95% REDUCTION IN ACTIVITY.
 FT MUTAGEN 50 50 S->Q: 40% REDUCTION IN ACTIVITY.
 FT MUTAGEN 51 51 Y->D: LOSS OF ACTIVITY.
 FT MUTAGEN 53 53 R->L: LOSS OF ACTIVITY.
 FT MUTAGEN 91 91 D->L: 90% REDUCTION IN ACTIVITY.
 SQ SEQUENCE 99 AA: 11025 MW: 53558695 CRC32:

Query Match
 Best Local Similarity 100.0%; Score 53; DB 1; Length 99;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 79 KOKWQ 84
 1 KOKWQ 6

RESULT 2
 ID MCP2-BOVIN STANDARD; PRT; 99 AA.
 AC 009141;
 DT 01-NOV-1995 (REL. 32, CREATED)
 DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
 DE MONOCYTE CHEMOTACTIC PROTEIN 2).
 OS SCY2 OR MCP2.
 OS BOS TAURUS (BOVINE).
 OS EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; ARTIODACTYLA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 94114084.
 RA WEMPE F., HANES J., SCHEIT K.H.;
 RL DNA CELL BIOL. 13:1-8(1994).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES. THIS PROTEIN
 CC CAN BIND HEPARIN.
 CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 CC EMBL: S67954; E118856; -
 DR EMBL: S67956; G544997; -
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 DR CYTOKINE; CHEMOTAXIS; SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE.
 FT SIGNAL 1 23 BY SIMILARITY.
 FT CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 2.
 FT MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID (BY
 FT SIMILARITY).
 FT DISULFID 34 59 BY SIMILARITY.
 FT DISULFID 35 75 BY SIMILARITY.
 SQ SEQUENCE 99 AA: 10900 MW: 98A2CD26 CRC32:

Query Match
 Best Local Similarity 100.0%; Score 53; DB 1; Length 99;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 79 KOKWQ 84
 1 KOKWQ 6

RESULT 3
 ID MCPA-BOVIN STANDARD; PRT; 99 AA.
 AC P28291;
 DT 01-DEC-1992 (REL. 24, CREATED)
 DT 01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
 DT 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1A PRECURSOR (MCP-1A) (ACIDIC
 DE SEMINAL FLUID PROTEIN).
 OS BOS TAURUS (BOVINE).
 OS EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;

OC EUTHERIA; ARTIODACTYLA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-SEMINAL PLASMA;
 RX MEDLINE: 92096117.
 RA WEMPE F., HENSCHEN A., SCHEIT K.H.;
 RL DNA CELL BIOL. 10:671-679(1991).
 RN [2]
 RP SEQUENCE FROM N.A.
 RC TISSUE-SEMINAL PLASMA;
 RX MEDLINE: 92181448.
 RA WEMPE F., EINSPIERER R., SCHEIT K.H.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 183:232-237(1992).
 RN [3]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 94338337.
 RA WEMPE F., KUHLMANN J.K., SCHEIT K.H.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 202:1272-1279(1994).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
 CC NEUTROPHILS.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 CC EMBL: L32659; G624394; -
 DR EMBL: M84602; G163395; -
 DR PIR: A39296; A39296.
 DR PIR: JC2336; JC2336.
 DR HSP: P13500; IMCA.
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 DR CYTOKINE; CHEMOTAXIS; SIGNAL.
 FT SIGNAL 1 23 BY SIMILARITY.
 FT CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 1A.
 FT MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID (BY
 FT SIMILARITY).
 FT DISULFID 34 59 BY SIMILARITY.
 FT DISULFID 35 75 BY SIMILARITY.
 SQ SEQUENCE 99 AA: 11114 MW: C8F5821D CRC32:

Query Match
 Best Local Similarity 100.0%; Score 53; DB 1; Length 99;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 79 KOKWQ 84
 1 KOKWQ 6

RESULT 4
 ID MCP1-PTG STANDARD; PRT; 99 AA.
 AC P42831;
 DT 01-NOV-1995 (REL. 32, CREATED)
 DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1).
 OS SCY2
 OS SCS SCROFA (PTG).
 OS EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; ARTIODACTYLA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 94183284.
 RA HOSANG K., KNOKE I., KLAUDINY J., WEMPE F., WUTKE W., SCHEIT K.H.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 199:962-968(1994).
 RN [2]
 RP SEQUENCE FROM N.A.
 RC TISSUE-BRAIN;
 RA ZACH O.R.F.;
 RL SUBMITTED (JUL-1994) TO EMBL/GENBANK/DBJ DATA BANKS.
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
 CC NEUTROPHILS.
 CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL: Z48479; G683717; -

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DR EMBL: X79416; G872313; -.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
FT SIGNAL 1 23 BY SIMILARITY.
FT CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 1.
FT MOD_RES 24 24 PYROLIDONE CARBOXYLIC ACID (BY
SIMILARITY).
FT DISULFID 34 59 BY SIMILARITY.
FT DISULFID 35 75 BY SIMILARITY.
SO SEQUENCE 99 AA; 10976 MW; ECC3AFB4 CRC32;

Query Match
Best Local Similarity 100.0%; Score 53; DB 1; Length 99;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 79 KOKWVO 84
|||||
QY 1 KOKWVO 6

RESULT 5 STANDARD: PRT; 101 AA.
AC P52203;
DR 01-OCT-1996 (REL. 34, CREATED)
DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE
CHEMOTACTIC PROTEIN 1).
GN SCY2 OR MCP1.
OS CANIS FAMILIARIS (DOG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; CARNIVORA.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-JUGULAR VEIN ENDOTHELIAL;
RX MEDLINE: 97176620.
RA KUWAR A.G., BALLANTYNE C.M., MICHAEL L.H., KUKIELA G.L., YONKER K.A.,
RA LINDSEY M.L., HARKINS H.K., BYRDSALL H.H., MACRAY C.R., LAROSA G.J.,
RA ROSSEN R.D., SMITH C.W., EWTAN M.L.;
RL CIRCULATION 95:693-700(1997).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
NEUTROPHILS. IMPORTANT FACTOR IN THE COURSE OF THE INFLAMMATORY
REACTION TO REPERFUSION OF THE PREVIOUSLY ISCHEMIC MYOCARDIUM.
MAY PLAY A SIGNIFICANT ROLE IN MONOCYTE TRAFFICKING INTO THE
REPERFUSED MYOCARDIUM.
CC -1- SUBUNIT: MONOMER OR HOMODIMER. IN EQUILIBRIUM (BY SIMILARITY).
CC -1- INDUCTION: BY TNF-ALPHA.
CC -1- TISSUE SPECIFICITY: ENDOTHELIUM OF SMALL VEINS AND INTRAFASCICULAR
VEINS, AND INFILTRATING LEUKOCYTES.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
DR EMBL: U29653; G114186; -.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
FT SIGNAL 1 23 BY SIMILARITY.
FT CHAIN 24 101 MONOCYTE CHEMOTACTIC PROTEIN 1.
FT MOD_RES 24 24 PYROLIDONE CARBOXYLIC ACID (BY
SIMILARITY).
FT DISULFID 34 59 BY SIMILARITY.
FT DISULFID 35 75 BY SIMILARITY.
SO SEQUENCE 101 AA; 11121 MW; A7075814 CRC32;

Query Match
Best Local Similarity 100.0%; Score 53; DB 1; Length 101;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 79 KOKWVO 84
|||||
QY 1 KOKWVO 6

RESULT 6 STANDARD: PRT; 125 AA.
ID MCP1_RABIT

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AC P28292;
DT 01-DEC-1992 (REL. 24, CREATED)
DT 01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1).
GN SCY2.
OS ORYCTOLAGUS CUNICULUS (RABBIT).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; LAGOMORPHA.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-NEW ZEALAND WHITE; TISSUE-SPLEEN;
RX MEDLINE: 91225489.
RA YOSHIMURA T., YOHKI N.;
RL J. IMMUNOL. 146:3483-3488(1991).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
NEUTROPHILS.
CC -1- SUBUNIT: MONOMER OR HOMODIMER. IN EQUILIBRIUM (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
DR EMBL: M57440; G165470; -.
DR HSSP: P13500; IMCA.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
FT SIGNAL 1 23 BY SIMILARITY.
FT CHAIN 24 125 MONOCYTE CHEMOTACTIC PROTEIN 1.
FT MOD_RES 24 24 PYROLIDONE CARBOXYLIC ACID (BY
SIMILARITY).
FT DISULFID 34 59 BY SIMILARITY.
FT DISULFID 35 75 BY SIMILARITY.
FT CARBOHYD 40 40 POTENTIAL.
FT CARBOHYD 55 55 POTENTIAL.
FT CARBOHYD 112 112 POTENTIAL.
SO SEQUENCE 125 AA; 13776 MW; FBAC9D27 CRC32;

Query Match
Best Local Similarity 100.0%; Score 53; DB 1; Length 125;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 79 KOKWVO 84
|||||
QY 1 KOKWVO 6

RESULT 7 STANDARD: PRT; 98 AA.
ID MCP4_HUMAN
AC O99616;
DR 15-JUL-1998 (REL. 36, CREATED)
DT 15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 4 PRECURSOR (MCP-4) (MONOCYTE
CHEMOTACTIC PROTEIN 4) (CK-BETA10) (MCC-1).
GN SCY413 OR MCP4 OR NCCL.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; PRIMATES.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-HEART;
RX MEDLINE: 97113354.
RA GARCIA-ZEPEDA E.A., COMBADIERE C., ROTHENBERG M.E., SARAFI M.N.,
RA LAVIGNE F., HAMID O., MURPHY P.M., LUSTER A.D.;
RL J. IMMUNOL. 157:5613-5626(1996).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
NEUTROPHILS.
CC -1- SUBUNIT: MONOMER OR HOMODIMER. IN EQUILIBRIUM (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
DR EMBL: M57440; G165470; -.
DR HSSP: P13500; IMCA.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
FT SIGNAL 1 23 BY SIMILARITY.
FT CHAIN 24 125 MONOCYTE CHEMOTACTIC PROTEIN 1.
FT MOD_RES 24 24 PYROLIDONE CARBOXYLIC ACID (BY
SIMILARITY).
FT DISULFID 34 59 BY SIMILARITY.
FT DISULFID 35 75 BY SIMILARITY.
FT CARBOHYD 40 40 POTENTIAL.
FT CARBOHYD 55 55 POTENTIAL.
FT CARBOHYD 112 112 POTENTIAL.
SO SEQUENCE 125 AA; 13776 MW; FBAC9D27 CRC32;

Query Match
Best Local Similarity 100.0%; Score 53; DB 1; Length 125;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 79 KOKWVO 84
|||||
QY 1 KOKWVO 6

RESULT 8 STANDARD: PRT; 125 AA.
ID MCP1_RABIT

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RA MEDLINE: 97341179.
RA BERKHOFF T.A., SARAU H.M., MOORES K., WHITE J.R., ELSHOURBAGY N.,
RA APPELBAUM E., REAVE T.J., BRANNER M., MARKMAN J., FOLEY J.J.,
RA SCHMIDT D.B., IMBURGIA C., MACMILLY D., MATTHEWS J., O'DONNELL K.,
RA O'SHANNESSEY D., SCOTT M., GROOT P.H.E., MACPHEE C.,
RA J. BIOL. CHEM. 272:16404-16413(1997).
RN [4]
RN SEQUENCE FROM N.A.
RA DANTE M., GIBSON A.,
RL SUBMITTED (AUG-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, LYMPHOCYTES,
CC BASOPHILS AND EOSINOPHILS, BUT NOT NEUTROPHILS. SIGNALS THROUGH
CC CCR2B AND CCR3 RECEPTORS. PLAYS A ROLE IN THE ACCUMULATION OF
CC LEUKOCYTES AT BOTH SIDES OF ALLERGIC AND NONALLERGIC INFLAMMATION.
CC MAY BE INVOLVED IN THE RECRUITMENT OF MONOCYTES INTO THE ARTERIAL
CC WALL DURING THE DISEASE PROCESS OF ARTEROSCLEROSIS. MAY PLAY A
CC ROLE IN THE MONOCYTE ATTRACTION IN TISSUES CHRONICALLY EXPOSED TO
CC EXOGENOUS PATHOGENS.
CC -1- MASS SPECTROMETRY: MW=9314; MW_ERR=30; METHOD=MALDI; RANGE=17-98.
CC -1- MASS SPECTROMETRY: MW=8760; MW_ERR=30; METHOD=MALDI; RANGE=22-98.
CC -1- MASS SPECTROMETRY: MW=8575; MW_ERR=30; METHOD=MALDI; RANGE=24-98.
CC -1- INDUCTION: BY INTERLEUKIN-1 AND TNF-ALPHA.
CC -1- TISSUE SPECIFICITY: WIDELY EXPRESSED. FOUND IN SMALL INTESTINE,
CC THYMUS, COLON, LUNG, TRACHEA, STOMACH AND LYMPH NODE. LOW LEVELS
CC SEEN IN THE PULMONARY ARTERY SMOOTH MUSCLE CELLS.
CC -1- THIS PROTEIN CAN BIND HEPARIN.
CC -1- PTM: ONE MAJOR ISOFORM MCP-4, AND TWO MINOR ISOFORMS (LA)MCP-4 AND
CC (F)MCP-4 ARE PRODUCED BY DIFFERENTIAL SIGNAL CLEAVAGE.
CC (LA)MCP-4 IS ABOUT 30 FOLD LESS ACTIVE THAN MCP-4.
CC -1- SIMILARITY: BELONGS TO THE INTERKINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: U46767; G1732123; -.
DR EMBL: AC002482; G2340091; -.
DR MIM: 601391; -.
UK PROSITE: P500472; SIGNAL; GLYCOPROTEIN; INFLAMMATORY RESPONSE.
UK CYTOKINE; CHEMOTAXIS; SIGNAL; GLYCOPROTEIN; INFLAMMATORY RESPONSE.
FT SIGNAL 1 23
FT CHAIN 24 98
FT MOD_RES 24 24 MONOCYTE CHEMOTACTIC PROTEIN 4.
FT DISULFID 34 58 PYRROLIDONE CARBOXYLIC ACID.
FT DISULFID 35 74 BY SIMILARITY.
FT CARBOHYD 29 29 POTENTIAL.
SQ SEQUENCE 98 AA; 10986 MW; DF52P6EC CRC32;
Query Match 92.5%; Score 49; DB 1; Length 98;
Best Local Similarity 83.3%; Pred. No. 2.02e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
Db 78 KEKWQ 83
OY 1 KKWQVQ 6
RESULT 8
ID IL8 BOVIN STANDARD; PRT; 101 AA.
AC P79255;
DT 01-NOV-1997 (REL. 35, CREATED)
DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
DE INTERLEUKIN-8 PRECURSOR (IL-8).
GN IL8
OS BOS TAURUS (BOVINE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; ARTIODACTYLA.
RN [1]
RN SEQUENCE FROM N.A.
RA MEDLINE: 96304552.
RA KORSLEY M.A., POPOWICH Y., KOMALSKI J., GERLACH G., GODSON D.,
RA CAMPOS M., BABIUK L.A.,
RL MICROB. PATHOG. 20:203-212(1996).
CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
CC BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN

CC RESPONSE TO AN INFLAMMATORY STIMULUS (BY SIMILARITY).
CC -1- SUBUNIT: HOMODIMER (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERKINE ALPHA FAMILY (SMALL CYTOKINE
CC C-X-C) (CHEMOKINE CXC).
DR EMBL: S82598; G1699354; -.
DR PROSITE: P500471; SMALL CYTOKINES CXC; 1.
KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
FT SIGNAL 1 22
FT CHAIN 23 101
FT DISULFID 34 61 INTERLEUKIN-8.
FT DISULFID 36 77 BY SIMILARITY.
SQ SEQUENCE 101 AA; 11291 MW; 0E39C526 CRC32;
Query Match 92.5%; Score 49; DB 1; Length 101;
Best Local Similarity 83.3%; Pred. No. 2.02e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
Db 81 KEKWQ 86
OY 1 KKWQVQ 6
RESULT 9
ID IL8 CANFA STANDARD; PRT; 101 AA.
AC P41324;
DT 01-FEB-1995 (REL. 31, CREATED)
DT 01-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE)
DT 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
DE INTERLEUKIN-8 PRECURSOR (IL-8).
GN IL8
OS CANIS FAMILIARIS (DOG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; CARNIVORA.
RN [1]
RN SEQUENCE FROM N.A.
RX MEDLINE: 94010328.
RX ISHIKAWA J., SUZUKI S., HOTTA K., HIROTA Y., MIZUNO S., SUZUKI K.,
RL GENE 131:305-306(1993).
RN [2]
RN SEQUENCE FROM N.A.
RP TISSUE-LYMPH NODE:
RX MEDLINE: 95127913.
RX MATSUMOTO Y., MOHAMED A., ONODERA T., KATO H., OHASHI T.,
RX GOITSUKA R., TSUJIMOTO H., HASEGAWA A., FURUSAWA S., YOSHITAKA K.,
RA ISHIKAWA J., HOTTA K., SUZUKI K., HIROTA Y.,
RN CYTOKINE 6:455-461(1994).
RN [3]
RN SEQUENCE FROM N.A.
RP STRAIN-MONGREL; TISSUE-JUGULAR VEIN;
RX MEDLINE: 95114148.
RA KUKIELKA G.L., SMITH W.C., LAROSA G.J., MANNING A.M.,
RA MENDOZA L.H., DALT T.J., HUGHES B.J., YOKER K.A., HAWKINS H.K.,
RA MICHAEL L.H., ROT A., ENTMAN M.L.,
RL J. CLIN. INVEST. 95:89-103(1994).
CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
CC BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
CC RESPONSE TO AN INFLAMMATORY STIMULUS.
CC -1- SUBUNIT: HOMODIMER.
CC -1- SIMILARITY: BELONGS TO THE INTERKINE ALPHA FAMILY (SMALL CYTOKINE
CC C-X-C) (CHEMOKINE CXC).
DR EMBL: D28772; G517100; -.
DR EMBL: D14285; G475152; -.
DR EMBL: U10308; G607814; -.
DR PROSITE: P500471; SMALL CYTOKINES CXC; 1.
KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
FT SIGNAL 1 22
FT CHAIN 23 101
FT DISULFID 34 61 INTERLEUKIN-8.
FT DISULFID 36 77 BY SIMILARITY.
SQ SEQUENCE 101 AA; 11280 MW; 7C49D63D CRC32;
Query Match 92.5%; Score 49; DB 1; Length 101;

Best Local Similarity 83.3%; Pred. No. 2.02e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 81 KKWVQ 86
1:|||||
QY 1 KKWVQ 6

RESULT 10
ID IL8_RABIT STANDARD; PRT; 101 AA.
AC P19874;
DT 01-FEB-1991 (REL. 17, CREATED)
DT 01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
DT 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
DE INTERLEUKIN-8 PRECURSOR (IL-8) (NEUTROPHIL ATTRACTANT/ACTIVATION
PROTEIN-1) (NAP-1) (PERMEABILITY FACTOR 1) (RPL1).
GN IL8.
OS ORYCTOLAGUS CUNICULUS (RABBIT).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
CC EUTHERIA; LAGOMORPHA.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-NEW ZEALAND WHITE; TISSUE-SPLEEN;
RX MEDLINE; 91225489.
RA YOSHIMURA T., YUHKI N.;
RL J. IMMUNOL. 146:3483-3488(1991).
RN [2]
RP SEQUENCE OF 23-53.
RC STRAIN-NEW ZEALAND WHITE; TISSUE-PERITONEAL CAVITY;
RX MEDLINE; 91058518.
RA BEAUBIEN B.C., COLLINS P.D., JOSE P.J., TOTTY N.F., HSUAN J.,
RL WATERFIELD M.D., WILLIAMS T.J.;
RN BIOCHEM. J. 271:797-801(1990).
CC -I- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
RESPONSE TO AN INFLAMMATORY STIMULUS.
CC -I- SUBUNIT: HOMODIMER.
CC -I- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
C-X-C) (CHEMOKINE CXCL).
CC DR EMBL; M57439; G165553; -.
DR PIR; S13052; S13052.
DR HSSP; P10145; 31L8.
DR PROSITE; PS00471; SMALL CYTOKINES CXCL; 1.
KM CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
RN [1]
FT CHAIN 1 22
FT SIGNAL 23 101 INTERLEUKIN-8.
FT DISULFID 34 61 BY SIMILARITY.
FT DISULFID 36 77 BY SIMILARITY.
FT CONFLICT 50 50 K -> I (IN REF. 2).
SQ SEQUENCE 101 AA; 11402 MW; CB32CC30 CRC32;

Query Match 92.5%; Score 49; DB 1; Length 101;
Best Local Similarity 83.3%; Pred. No. 2.02e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 81 KKWVQ 86
1:|||||
QY 1 KKWVQ 6

RESULT 11
ID IL8_SHEEP STANDARD; PRT; 101 AA.
AC P36825;
DT 01-JUN-1994 (REL. 29, CREATED)
DT 01-JUN-1994 (REL. 29, LAST SEQUENCE UPDATE)
DT 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
DE INTERLEUKIN-8 PRECURSOR (IL-8).
GN IL8.
OS OVIS ARIES (SHEEP).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
CC EUTHERIA; ARTIODACTYLA.
RN [1]

RP SEQUENCE FROM N.A.
RX MEDLINE; 95121931.
RA LEGASTELOIS I., GREENLAND T., ARNAUD P., MORNEX J.F., CORDIER G.;
RL GENE 150:367-369(1994).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE; 95137691.
RA SEOM H.F., YOSHIMURA T., WOOD P.R., COLDITZ I.G.;
RL IMMUNOL. CELL BIOL. 72:398-405(1994).
CC -I- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
RESPONSE TO AN INFLAMMATORY STIMULUS.
CC -I- SUBUNIT: HOMODIMER.
CC -I- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
C-X-C) (CHEMOKINE CXCL).
CC DR EMBL; X78306; G463254; -.
DR EMBL; S74436; G786591; -.
DR PIR; S42496; S42496.
DR HSSP; P10145; 31L8.
DR PROSITE; PS00471; SMALL CYTOKINES CXCL; 1.
KM CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
RN [1]
FT SIGNAL 1 22
FT CHAIN 23 101 BY SIMILARITY.
FT DISULFID 34 61 INTERLEUKIN-8.
FT DISULFID 36 77 BY SIMILARITY.
SQ SEQUENCE 101 AA; 11292 MW; 5A574527 CRC32;

Query Match 92.5%; Score 49; DB 1; Length 101;
Best Local Similarity 83.3%; Pred. No. 2.02e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 81 KKWVQ 86
1:|||||
QY 1 KKWVQ 6

RESULT 12
ID IL8_PIG STANDARD; PRT; 103 AA.
AC P26894; P22951;
DT 01-AUG-1991 (REL. 19, CREATED)
DT 01-AUG-1992 (REL. 23, LAST SEQUENCE UPDATE)
DT 01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
DE INTERLEUKIN-8 PRECURSOR (IL-8) (ALVEOLAR MACROPHAGE CHEMOTACTIC FACTOR
I) (AMCF-1).
GN IL8.
OS SUS SCROFA (PIG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
CC EUTHERIA; ARTIODACTYLA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE; 94103307.
RA LIN G., PEARSON A.E., SCAMURRA R.W., ZHOU Y., BAARSCH M.J.,
RA WEISS D.J., MURTAUGH M.P.;
RL J. BIOL. CHEM. 269:77-85(1994).
RN [2]
RP SEQUENCE FROM N.A.
RA SANJANMALA M.;
RL SUBMITTED (JUL-1991) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [3]
RP SEQUENCE FROM N.A., AND SEQUENCE OF 26-45.
RC TISSUE-LUNG;
RX MEDLINE; 93041741.
RA GOODMAN R.B., FOSTER D.C., MATHEWS S.L., OSBORN S.G., KUIJPER J.L.,
RA FORSTROM J.W., MARTIN T.R.;
RL BIOCHEMISTRY 31:10483-10490(1992).
RN [4]
RP REVISION TO 23.
RA GOODMAN R.B.;
RL SUBMITTED (MAR-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [5]
RP SEQUENCE OF 26-45.
RC STRAIN-YORKSHIRE;

RX MEDLINE: 91217086.
RA GOODMAN R.B., FORSTROM J.W., OSBORN S.G., CHU E.Y., MARTIN T.R.,
RL J. BIOL. CHEM. 266:8455-8463(1991).
CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
CC BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
CC RESPONSE TO AN INFLAMMATORY STIMULUS.
CC -1- SUBUNIT: HOMODIMER.
CC -1- TISSUE SPECIFICITY: ALVEOLAR MACROPHAGES.
CC -1- INDUCTION: BY LIPOPOLYSACCHARIDE.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
CC C-X-C) (CHEMOKINE CXCL).
DR EMBL: M86923; G164521; -.
DR EMBL: X61151; G516197; -.
DR EMBL: M99367; G1235612; -.
DR PIR: A44253; A44253.
DR PIR: A39819; A39819.
DR HSSP: P10145; 3118.
DR PROSITE: PS00471: SMALL CYTOKINES_CXC; 1.
DR CYTOKINE; CHEMOKINES; INFLAMMATORY RESPONSE; SIGNAL.
FT SIGNAL 1 25
FT CHAIN 26 103 INTERLEUKIN-8.
FT DISULFID 34 61 BY SIMILARITY.
FT DISULFID 36 77 BY SIMILARITY.
FT CONFLICT 33 34 RC -> CR (IN REF. 5).
FT CONFLICT 87 87 K -> KK (IN REF. 2).
SQ SEQUENCE 103 AA: 11633 MW: A012D59D CRC32;

Query Match 92.5%; Score 49; DB 1; Length 103;
Best Local Similarity 83.3%; Pred. No. 2,02e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 81 KKKWVQ 86
OY 1 KKKWVQ 6
1:1111
1 KKKWVQ 6

RESULT 13
ID PSTA_MYCPN STANDARD; PRT; 651 AA.
AC P75185;
DT 01-NOV-1997 (REL. 35, CREATED)
DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
DE PHOSPHATE TRANSPORT SYSTEM PERMEASE PROTEIN PSTA HOMOLOG.
GN PSTA.
OS MYCOPLASMA PNEUMONIAE.
OC PROKARYOTA; TENERICUTES; MOLLICUTES; MYCOPLASMA; MYCOPLASMATALES;
OC MYCOPLASMATACEAE.
CC [1]
RP SEQUENCE FROM N.A.
RC STRAIN-ATCC 29342 / M129;
RX MEDLINE: 97105885.
RA HIMMELREICH R., HILBERT H., PLAGENS H., PIRKL E., LI B.-C.,
RA HERRMANN R.;
RL NUCLEIC ACIDS RES. 24:4420-4449(1996).
CC -1- FUNCTION: COULD BE PART OF A BINDING-PROTEIN-DEPENDENT TRANSPORT
CC SYSTEM FOR PHOSPHATE. PROBABLY RESPONSIBLE FOR THE TRANSLLOCATION
CC OF THE SUBSTRATE ACROSS THE MEMBRANE (BY SIMILARITY).
CC -1- SUBCELLULAR LOCATION: INTEGRAL MEMBRANE PROTEIN (POTENTIAL).
CC -1- SIMILARITY: WITH INTEGRAL MEMBRANE COMPONENTS OF OTHER BINDING-
CC PROTEIN-DEPENDENT TRANSPORT SYSTEMS. BELONGS TO THE CISTM
CC SUBFAMILY.
DR EMBL: AE000023; G1673899; -.
DR PROSITE: PS00402: BPD_TRANS INN_MEMBER; FALSE NEG.
KW TRANSPORT; PHOSPHATE TRANSPORT; TRANSMEMBRANE.
FT TRANSMEM 22 42
FT TRANSMEM 64 84 POTENTIAL.
FT TRANSMEM 107 127 POTENTIAL.
FT TRANSMEM 143 163 POTENTIAL.
FT TRANSMEM 368 388 POTENTIAL.
FT TRANSMEM 417 437 POTENTIAL.
FT TRANSMEM 451 471 POTENTIAL.
FT TRANSMEM 486 506 POTENTIAL.

FT TRANSMEM 535 555 POTENTIAL.
FT TRANSMEM 613 633 POTENTIAL.
SQ SEQUENCE 651 AA: 72747 MW: A480C49C CRC32;

Query Match 88.7%; Score 47; DB 1; Length 651;
Best Local Similarity 83.3%; Pred. No. 4,26e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 635 KKKWVQ 640
OY 1 KKKWVQ 6
1:1111
1 KKKWVQ 6

RESULT 14
ID EOTA_CAVPO STANDARD; PRT; 96 AA.
AC P80325;
DT 01-JUN-1994 (REL. 29, CREATED)
DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
GN SCV411.
OS CAVIA PORCELLUS (GUINEA PIG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=LUNG.
RC MEDLINE: 95173589.
RA ROTHENBERG M.E., LUSTER A.D., LILLY C.M., DRAZEN J.M., LEDER P.;
RA J. EXP. MED. 181:1211-1216(1995).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 95091818.
RA JOSE P.J., ADCOCK I.M., GRIFFITHS-JOHNSON D.A., BERKMAN N.,
RA WELLS T.C., WILLIAMS T.J., POWER C.A.;
RA BIOCHEM. BIOPHYS. RES. COMMUN. 205:788-794(1994).
RN [3]
RP SEQUENCE OF 24-96.
RC STRAIN-HARTLEY; TISSUE=LUNG;
RX MEDLINE: 94157409.
RA JOSE P.J., GRIFFITHS-JOHNSON D.A., COLLINS P.D., WALSH D.T.,
RA MOOREL R., TORY N.F., TRUNG O., HSUAN J.J., WILLIAMS T.J.;
RL J. EXP. MED. 179:881-887(1994).
CC -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
CC DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT
CC FEATURE OF ALLERGIC INFLAMMATORY REACTIONS.
CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
CC -1- TISSUE SPECIFICITY: LUNG.
CC -1- PTM: O-GLYCOSYLATED (PROBABLE).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-X-C) (CHEMOKINE CC).
DR EMBL: U18941; G687656; -.
DR EMBL: X77603; G602552; -.
DR HSSP: P13500; 1MCA.
DR PROSITE: PS00472: SMALL CYTOKINES_CC; 1.
KW EOSINOPHIL; CYTOKINE; CHEMOKINES; GLYCOPROTEIN; SIGNAL;
KW INFLAMMATORY RESPONSE.
FT SIGNAL 1 23
FT CHAIN 24 96 EOTAXIN.
FT DISULFID 31 56 BY SIMILARITY.
FT DISULFID 32 72 BY SIMILARITY.
FT CARBOHYD 93 93 POTENTIAL.
FT CONFLICT 88 88 D -> G (IN REF. 2).
SQ SEQUENCE 96 AA: 10753 MW: DD28C7E5 CRC32;

Query Match 86.8%; Score 46; DB 1; Length 96;
Best Local Similarity 83.3%; Pred. No. 6,15e+01;
Matches 5; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 76 KKKWVQ 81
OY 1 KKKWVQ 6

RESULT 15
 ID EOTA HUMAN STANDARD: PRT: 97 AA.
 AC P51671.P50877; Q92490; Q92491;
 DT 01-OCT-1996 (REL. 34, CREATED)
 DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
 DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
 DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
 OS SCYALL
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUHERIA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 96181758.
 RA GARCIA-ZEBEDA E.A., ROTHENBERG M.E., OMNEY T.R., LEDER P.,
 RA LUSTER A.D.;
 RL NAT. MED. 2:449-456(1996).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 96189937.
 RA PONATH P.D., QIN S., RINGLER D.J., CLARK-LEWIS I., WANG J., KASSAM N.,
 RA SMITH H., SHI X., GONZALO J.A., NEWMAN W., GUTIERREZ-RAMOS J.C.,
 RA MACKAY C.R.;
 RL J. CLIN. INVEST. 97:604-612(1996).
 RN [3]
 RP SEQUENCE FROM N.A.
 RX TISSUE-SMALL. INTESTINE;
 RX MEDLINE: 96205964.
 RA KITAHARA M., NAKAJIMA T., IMAI T., HARADA S., COMBADIERE C.,
 RA TIFFANY H.L., MURPHY P.M., YOSHIE O.;
 RL J. BIOL. CHEM. 271:7725-7730(1996).
 RN [4]
 RP SEQUENCE FROM N.A., SEQUENCE OF 60-65 AND 75-88, AND VARIANTS.
 RC TISSUE-FORESKIN;
 RX MEDLINE: 96374440.
 RA BARTELS J., SCHLUETER C., RICHTER E., NOSO N., KULKE R.,
 RA CHRISTOPHERS E., SCHROEDER J.M.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 225:1045-1051(1996).
 RN [5]
 RP SEQUENCE FROM N.A.
 RC TISSUE-PLACENTA;
 RX MEDLINE: 97312708.
 RA GARCIA-ZEBEDA E.A., ROTHENBERG M.E., WEREMOWICZ S., SARAFI M.N.,
 RA MORTON C.C., LUSTER A.D.;
 RL GENOMICS 41:471-476(1997).
 RN [6]
 RP SEQUENCE FROM N.A.
 RC TISSUE-LUNG;
 RX MEDLINE: 97445071.
 RA HEIN H., SCHLUETER C., KULKE R., CHRISTOPHERS E., SCHROEDER J.M.,
 RA BARTELS J.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 237:537-542(1997).
 CC -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
 CC DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT
 CC FEATURE OF ALLERGIC INFLAMMATORY REACTIONS.
 CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
 CC -1- PTM: O-GLYCOSYLATED (PROBABLY).
 CC -1- INDUCTION: BY TNF-ALPHA, IL-1-ALPHA AND INTERFERON GAMMA.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 CC EMBL: U46573; G1280141; -
 DR EMBL: U34780; G1185440; -
 DR EMBL: D49372; G1552341; -
 DR EMBL: Z69291; E221070; -
 DR EMBL: Z75668; E251275; -
 DR EMBL: Z75669; E251258; -
 DR EMBL: U46572; G208509; -
 DR EMBL: Z92709; E329504; -
 DR MIM: 601156; -
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 DR EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
 KW INFLAMMATORY RESPONSE; POLYMORPHISM.

FT SIGNAL 1 23 POTENTIAL.
 FT CHAIN 24 97 EOTAXIN.
 FT DISULFID 32 57 BY SIMILARITY.
 FT DISULFID 33 73 BY SIMILARITY.
 FT VARIANT 7 7 L -> P (IN CLONE 34).
 FT VARIANT 23 23 A -> T (IN CLONE 53).
 FT VARIANT 51 51 R -> S (IN CLONE 34).
 FT VARIANT 79 79 K -> R (IN CLONE 53).
 SQ SEQUENCE 97 AA; 10732 MW; 6C0F3D98 CRC32;
 Query Match 86.8%; Score 46; DB 1; Length 97;
 Best Local Similarity 83.3%; Pred. No. 6,15e+01;
 Matches 5; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
 Db 77 KKKWQ 82
 Qy 1 KKKWQ 6
 RESULT 16
 ID EOTA MOUSE STANDARD: PRT: 97 AA.
 AC P48298;
 DT 01-FEB-1996 (REL. 33, CREATED)
 DT 01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
 GN SCYALL.
 OS MUS MUSCULUS (MOUSE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUHERIA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX TISSUE-LUNG;
 RX MEDLINE: 96004658.
 RA ROTHENBERG M.E., LUSTER A.D., LEDER P.;
 RL PROC. NATL. ACAD. SCI. U.S.A. 92:8960-8964(1995).
 RN [2]
 RP SEQUENCE FROM N.A.
 RC STRAIN-C57BL/6J; TISSUE-LUNG;
 RX MEDLINE: 96158746.
 RA GONZALO J.-A., JIA G.-Q., AGUIRRE V., FRIEND D., COYLE A.J.,
 RA JENKINS N.A., LIN G.-S., KATZ H., LICHTMAN A., COPELAND N.G., KOPE M.,
 RA GUTIERREZ-RAMOS J.-C.;
 RL IMMUNITY 4:1-14(1996).
 CC -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
 CC DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS (A PROMINENT
 CC FEATURE OF ALLERGIC INFLAMMATORY REACTIONS), BUT NOT
 CC LYMPHOCYTES, MACROPHAGES OR NEUTROPHILS.
 CC -1- TISSUE SPECIFICITY: EXPRESSED CONSTITUTIVELY IN THE THYMUS.
 CC EXPRESSION INDUCIBLE IN THE LUNG (TYPE I ALVEOLAR EPITHELIAL
 CC CELLS), INTESTINE, HEART, SPLEEN, KIDNEY.
 CC -1- INDUCTION: BY INTERFERON-GAMMA AND LIPOPOLYSACCHARIDE (LPS).
 CC -1- PTM: O-GLYCOSYLATED (PROBABLY).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 CC EMBL: U26426; G995911; -
 DR EMBL: U40672; G111937; -
 DR MGD: MGI:103576; SCYALL.
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 DR EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
 KW INFLAMMATORY RESPONSE.
 FT SIGNAL 1 23 POTENTIAL.
 FT CHAIN 24 97 EOTAXIN.
 FT DISULFID 32 57 BY SIMILARITY.
 FT DISULFID 33 73 BY SIMILARITY.
 SQ SEQUENCE 97 AA; 10893 MW; F85A96BC CRC32;
 Query Match 86.8%; Score 46; DB 1; Length 97;
 Best Local Similarity 83.3%; Pred. No. 6,15e+01;
 Matches 5; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
 Db 77 KKKWQ 82


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OY      1      11111
        1 KKKWQ 6

RESULT 17
AC      EOTA_RAT      STANDARD:      PRT:      97 AA.
AC      P97545; 008780;
DT      15-JUL-1998 (REL. 36, CREATED)
DT      15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
DT      15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE      EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
OS      RATUUS NORVEGICUS (RAT).
OC      EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC      EUTHERIA; RODENTIA.
RN      (1)
RP      SEQUENCE FROM N.A.
RA      WILLIAMS C.M., NEWTON D.J., WILSON S.A., COLEMAN J.C.,
RA      FLANAGAN B.F.;
RL      SUBMITTED (DEC-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
RM      [2]
RP      SEQUENCE FROM N.A.
RC      TISSUE=LUNG;
RA      ISHII Y.;
RL      SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
CC      -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
CC      DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT
CC      FEATURE OF ALLERGIC INFLAMMATORY REACTIONS (BY SIMILARITY).
CC      -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
CC      -1- PTM: O-GLYCOSYLATED (PROBABLE).
CC      -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC      C-C) (CHEMOKINE CC).
DR      EMBL; Y08358; E274141;
DR      EMBL; U96637; G2098785;
DR      PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW      EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
KW      INFLAMMATORY RESPONSE.
FT      SIGNAL      1      23      POTENTIAL.
FT      CHAIN      24      97      EOTAXIN.
FT      DISULFID      32      57      BY SIMILARITY.
FT      DISULFID      33      73      BY SIMILARITY.
FT      CARBOHYD      94      94      POTENTIAL.
FT      CONFLICT      3      3      L-> S (IN REF. 2).
SQ      SEQUENCE      97 AA; 10851 MW; 05B4BD45 CRC32;

Query Match      86.8%; Score 46; DB 1; Length 97;
Best Local Similarity 83.3%; Pred. No. 6.15e+01;
Matches      5; Conservative      0; Mismatches      1; Indels      0; Gaps      0;

DB      77 KKKWQ 82
OY      1      11111
        1 KKKWQ 6

RESULT 18
AC      MCP3_PIG      STANDARD:      PRT:      99 AA.
AC      P49673;
DT      01-OCT-1996 (REL. 34, CREATED)
DT      01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT      15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE      MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
DE      CHEMOATTRACTANT PROTEIN 2).
OS      SCVIA8 OR MCP2.
OS      SUS SCROFA (PIG).
OC      EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC      EUTHERIA; ARTIODACTYLA.
RN      [1]
RP      SEQUENCE FROM N.A.
RA      HOSANG K.K., KNOKE I.I., KLAUDINY J.J., WEMPE F.F., WUTTKE W.W.,
RA      SCHMIT K.K.;
RL      BIOCHEM. BIOPHYS. RES. COMMUN. 205:148-153(1994).
CC      -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES. THIS PROTEIN
CC      CAN BIND HEPARIN.

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CC      -1- SUBUNIT: MONOMER OR HOMODIMER. IN EQUILIBRIUM (BY SIMILARITY).
CC      -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC      C-C) (CHEMOKINE CC).
DR      EMBL; Z48480; G683719;
DR      PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW      CYTOKINE; CHEMOTAXIS; SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE.
FT      SIGNAL      1      23      BY SIMILARITY.
FT      CHAIN      24      99      MONOCYTE CHEMOTACTIC PROTEIN 2.
FT      MOD_RES      24      24      PYRROLIDONE CARBOXYLIC ACID (BY
FT      MOD_RES      24      24      SIMILARITY).
FT      DISULFID      34      59      BY SIMILARITY.
FT      DISULFID      35      75      BY SIMILARITY.
SQ      SEQUENCE      99 AA; 10903 MW; B7620BCF CRC32;

Query Match      86.8%; Score 46; DB 1; Length 99;
Best Local Similarity 100.0%; Pred. No. 6.15e+01;
Matches      5; Conservative      0; Mismatches      0; Indels      0; Gaps      0;

DB      80 OKWQ 84
OY      2      11111
        2 OKWQ 6

RESULT 19
AC      MCP3_HUMAN      STANDARD:      PRT:      99 AA.
AC      P80098;
DT      01-DEC-1992 (REL. 24, CREATED)
DT      01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
DT      15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE      MONOCYTE CHEMOTACTIC PROTEIN 3 PRECURSOR (MCP-3) (MONOCYTE
DE      CHEMOATTRACTANT PROTEIN 3) (NC28).
OS      SCVIA8 OR MCP3.
OS      HOMO SAPIENS (HUMAN).
OC      EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC      EUTHERIA; PRIMATES.
RN      [1]
RP      SEQUENCE FROM N.A. AND SEQUENCE OF 31-67 AND 71-99.
RA      OPDENAKKER G., FROYEN G., FROYEN G., VAN DAMME J.;
RA      OPDENAKKER G., FROYEN G., FROYEN G., VAN DAMME J.;
RL      BIOCHEM. BIOPHYS. RES. COMMUN. 191:535-542(1993).
RN      [2]
RP      SEQUENCE FROM N.A.
RA      OPDENAKKER G., FROYEN G., FROYEN G., VAN DAMME J.;
RA      OPDENAKKER G., FROYEN G., FROYEN G., VAN DAMME J.;
RL      GENOMICS 21:403-408(1994).
RN      [3]
RP      SEQUENCE FROM N.A.
RA      MEDLINE; 93305913.
RA      MEDLINE; 93305913.
RA      MINTY A., CHALON P., GUILLEMOT J.C., KAGHAD M., LIAUZUN P.,
RA      MAGAZIN M., MILLOUX B., MINTY C., RAMOND P., VITA N., LUPPER J.,
RA      SHIRE D., FERRARA P., CAPUT D.;
RL      EUR. CYTOKINE NETW. 4:99-110(1993).
RN      [4]
RP      SEQUENCE OF 30-99.
RC      TISSUE=OSTEOSARCOMA;
RX      MEDLINE; 92308855.
RA      VAN DAMME J., PROOST P., LENAERTS J.-P., OPDENAKKER G.;
RL      J. EXP. MED. 176:59-65(1992).
RN      [5]
RP      STRUCTURE BY NMR, AND SUBUNIT.
RX      MEDLINE; 97053697.
RA      KIM K.-S., RAJARATHNAM K., CLARK-LEWIS I., SYKES B.D.;
RL      FEBS LETT. 395:277-282(1996).
RN      [6]
RP      STRUCTURE BY NMR.
RX      MEDLINE; 97263733.
RA      MEDNIER S., BERNASSAU J.-M., GUILLEMOT J.-C., FERRARA P., DARBON H.;
RL      BIOCHEMISTRY 36:4412-4422(1997).
CC      -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND
CC      EOSINOPHILS, BUT NOT NEUTROPHILS. AUGMENTS MONOCYTE ANTI-TUMOR
CC      ACTIVITY. ALSO INDUCES THE RELEASE OF GELATINASE B. THIS PROTEIN
CC      CAN BIND HEPARIN.

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CC -1- SUBUNIT: MONOMER.
 CC -1- PTM: O-GLYCOSYLATED.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL; X72308; G313708; ALT_INIT.
 DR EMBL; X72309; -; NOT_ANNOTATED_CDS.
 DR EMBL; X71087; G288399; -.
 DR EMBL; X71087; G288398; ALT_INIT.
 DR EMBL; X71087; G288397; ALT_INIT.
 DR PIR; JC1478; JC1478.
 DR PIR; S32222; S32222.
 DR PIR; A54678; A54678.
 DR PDB; 1NCV; 15-OCT-97.
 DR MIM; 158106; -.
 DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOTAXIS; HEPARIN-BINDING; GLYCOPROTEIN; SIGNAL;
 KW INFLAMMATORY_RESPONSE; 3D-STRUCTURE.
 FT SIGNAL 1 23
 FT CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 3.
 FT MOD_RES 24 24 PYROLIDONE CARBOXYLIC ACID.
 FT DISULFID 34 59 BY SIMILARITY.
 FT DISULFID 35 75 BY SIMILARITY.
 FT CARBOHYD 29 29 POTENTIAL.
 FT CONFLICT 30 30 T -> K (IN REF. 4).
 FT CONFLICT 68 70 MISSING (IN REF. 4).
 SQ SEQUENCE 99 AA; 11200 MW; 7502E19C CRC32;

Query Match 86.8%; Score 46; DB 1; Length 99;
 Best Local Similarity 100.0%; Pred. No. 6.15e+01;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 80 OKWVQ 84
 |||||
 QY 2 OKWVQ 6

RESULT 20
 ID IL8.CAVPO STANDARD; PRT: 101 AA.
 AC P49113;
 DT 01-FEB-1996 (REL. 33, CREATED)
 DT 01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
 DT 01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
 DE INTERLEUKIN-8 PRECURSOR (IL-8) (NEUTROPHIL ATTRACTANT PROTEIN 1)
 DE (NAP-1).
 OS IL8
 OS CAVIA PORCELLUS (GUINEA PIG).
 OS EUDAROTIA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OS EUTHERIA; RODENTIA.
 KW [1]
 RP SEQUENCE FROM N.A.
 RP TISSUE-SPLEEN.
 RX MEDLINE; 94065176.
 RA YOSHIMURA T.; JOHNSON D.G.;
 RL J. IMMUNOL. 151:6225-6236(1993).
 CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
 BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
 CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
 CC RESPONSE TO AN INFLAMMATORY STIMULUS (BY SIMILARITY).
 CC -1- SUBUNIT: HOMODIMER (BY SIMILARITY).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
 CC C-X-C) (CHEMOKINE CXC).
 DR EMBL; L04986; G459765; -.
 DR PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
 KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY_RESPONSE; SIGNAL.
 FT SIGNAL 1 22
 FT CHAIN 23 101
 FT DISULFID 34 61 INTERLEUKIN-8.
 FT DISULFID 36 77 BY SIMILARITY.
 SQ SEQUENCE 101 AA; 11414 MW; E13FB521 CRC32;

Query Match 86.8%; Score 46; DB 1; Length 101;
 Best Local Similarity 83.3%; Pred. No. 6.15e+01;
 Matches 5; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 81 KKKVQ 86
 |||||
 QY 1 KKKVQ 6

RESULT 21
 ID MCP1.CAVPO STANDARD; PRT: 120 AA.
 AC Q08782;
 DT 01-NOV-1995 (REL. 32, CREATED)
 DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE
 DE CHEMOTRACTANT PROTEIN-1).
 GN SCY2 OR MCP1.
 OS CAVIA PORCELLUS (GUINEA PIG).
 OC EUDAROTIA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; RODENTIA.
 KW [1]
 RP SEQUENCE FROM N.A.
 RP STRAIN=2; TISSUE-SPLEEN;
 RX MEDLINE; 93267104.
 RA YOSHIMURA T.;
 RL J. IMMUNOL. 150:5025-5032(1993).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
 CC NEUTROPHILS.
 CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL; L04985; G349821; -.
 DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY_RESPONSE; GLYCOPROTEIN.
 FT SIGNAL 1 23
 FT CHAIN 24 120 MONOCYTE CHEMOTACTIC PROTEIN 1.
 FT MOD_RES 24 24 PYROLIDONE CARBOXYLIC ACID (BY
 FT DISULFID 33 57 SIMILARITY).
 FT DISULFID 34 73 BY SIMILARITY.
 FT CARBOHYD 97 97 POTENTIAL.
 SQ SEQUENCE 120 AA; 13741 MW; 22FAD257 CRC32;

Query Match 86.8%; Score 46; DB 1; Length 120;
 Best Local Similarity 100.0%; Pred. No. 6.15e+01;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 78 OKWVQ 82
 |||||
 QY 2 OKWVQ 6

RESULT 22
 ID EL1.BOVIN STANDARD; PRT: 266 AA.
 AC Q28153;
 DT 01-NOV-1997 (REL. 35, CREATED)
 DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE ELASTASE 1 PRECURSOR (EC 3.4.21.36).
 DE ELA1.
 GN BOS TAURUS (BOVINE).
 OC EUDAROTIA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; ARTIODACTYLA.
 KW [1]
 RP SEQUENCE FROM N.A.
 RP STRAIN=HOLSTEIN-FRIESIAN; TISSUE-PANCREAS;
 RX MEDLINE; 98079203.
 RA GESTIN M.; LE HIEROU-LURON I.; WICKER-PLANGUANT C.; LE DREAN G.;
 RA CHAIX J.C.; PUISSEYER A.; GUILLOTTEAU P.;
 RL COMP. BIOCHEM. PHYSIOL. 118B:181-187(1997).
 CC -1- CATALYTIC ACTIVITY: HYDROLYSIS OF PROTEINS, INCLUDING ELASTIN.
 CC PREFERENTIAL_CLEAVAGE: ALA-1-XAA.
 CC -1- SIMILARITY: BELONGS TO PEPTIDASE FAMILY S1; ALSO KNOWN AS THE
 CC TRYPSIN FAMILY.
 DR EMBL; M80838; G163484; -.

DR PROSITE: PS00134; TRYPSIN_HIS; 1.
 KM PROSITE: PS00135; TRYPSIN_SER; 1.
 FT HYDROLASE; SERINE PROTEASE; ZYMOGEN; PANCREAS; SIGNAL.
 FT SIGNAL 1 16
 FT PROPEP 17 26 BY SIMILARITY.
 FT CHAIN 27 266 ACTIVATION PEPTIDE (BY SIMILARITY).
 FT DISULFID 56 72 ELASTASE 1.
 FT DISULFID 153 72 BY SIMILARITY.
 FT DISULFID 184 220 BY SIMILARITY.
 FT DISULFID 210 200 BY SIMILARITY.
 FT ACT_SITE 71 71 BY SIMILARITY.
 FT ACT_SITE 119 71 CHARGE RELAY SYSTEM (BY SIMILARITY).
 FT ACT_SITE 214 119 CHARGE RELAY SYSTEM (BY SIMILARITY).
 FT CARBOHYD 87 87 POTENTIAL.
 FT CARBOHYD 241 241 POTENTIAL.
 SQ SEQUENCE 266 AA; 28518 MW; A4749F99 CRC32;

Query Match 86.8%; Score 46; DB 1; Length 266;
 Best Local Similarity 100.0%; Pred. No. 6.15e+01;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Lb 62 KOKWV 66
 |||||
 QY 1 KOKWV 5

RESULT 23
 ID YBOF_SCHPO STANDARD; PRT; 396 AA.
 AC P87156;
 DT 15-JUL-1998 (REL. 36, CREATED)
 DT 15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE HYPOTHETICAL 44.3 KD PROTEIN C25H2.15 IN CHROMOSOME 11.
 GN SPBC35H2.15.
 OS SCHIZOSACCHAROMYCES POMBE (FISSION YEAST).
 OC EUKARYOTA; FUNGI; ASCOMYCOTINA; HEMIASCOMYCETES.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-972;
 RA DURSO G., LYE G., BOWMAN S., CHURCH C., WOOD V., BARRELL B.G.,
 RA RAJANDREAM M.A., CONNOR R.E.;
 RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 CC -1- SIMILARITY: TO YEAST YOL022C.
 DR EMBL: Z53597; E315887; -.
 KW HYPOTHETICAL PROTEIN.
 SQ SEQUENCE 396 AA; 44276 MW; 9902417E CRC32;

Query Match 86.8%; Score 46; DB 1; Length 396;
 Best Local Similarity 100.0%; Pred. No. 6.15e+01;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 3 QKWWQ 7
 |||||
 QY 2 QKWWQ 6

RESULT 24
 ID YAS4_HAEIN STANDARD; PRT; 460 AA.
 AC P44104;
 DT 01-NOV-1995 (REL. 32, CREATED)
 DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
 DT 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
 DE HYPOTHETICAL PROTEIN H11054.
 GN H11054.
 OS HAEMOPHILUS INFLUENZAE.
 OC PROKARYOTA; GRACILICUTES; SCOTOBACTERIA; FACULTATIVELY ANAEROBIC RODS;
 CC PASTEURILLACEAE.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-RD / KW20;
 RX MEDLINE: 95350630.
 RA FLEISCHMANN R.D., ADAMS M.D., WHITE O., CLAYTON R.A., KIRKNESS E.F.,
 RA KERLAVAGE A.R., BULT C.J., TOMB J.-F., DOUGHERTY B.A., MERRICK J.M.,

RA MCKENNEY K., SUTTON G., FITZHUGH W., FIELDS C.A., COCAINE J.D.,
 RA SCOTT J.D., SHIRLEY R., LIU L.-I., GLODER A., KELLEY J.M.,
 RA WEIDMAN J.F., PHILLIPS C.A., SPRIGGS T., HEDBLUM E., COTTON M.D.,
 RA UTTERBACK T.R., HANNA M.C., NGUYEN D.T., SAUDEK D.M., BRANDON R.C.,
 RA FINE L.D., FRITZCHMAN J.L., FUHRMANN J.L., GEOGHAGEN N.S.M.,
 RA GNEHM C.L., McDONALD L.A., SMALL K.V., FRASER C.M., SMITH H.O.,
 RA VENTER J.C.;
 RL SCIENCE 269:496-512(1995).
 DR EMBL: U32786; G1574617; -.
 KW TIGR: H11054; -.
 DE HYPOTHETICAL PROTEIN.
 SQ SEQUENCE 460 AA; 53471 MW; 2EDDE6E12 CRC32;

Query Match 86.8%; Score 46; DB 1; Length 460;
 Best Local Similarity 100.0%; Pred. No. 6.15e+01;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 288 KOKWV 292
 |||||
 QY 1 KOKWV 5

RESULT 25
 ID Y549_MERJA STANDARD; PRT; 141 AA.
 AC Q57969;
 DT 01-NOV-1997 (REL. 35, CREATED)
 DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
 DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
 DE HYPOTHETICAL PROTEIN M05049.
 GN M05049.
 OS METHANOCOCCUS JANNASCHII.
 OC ARCHAEABACTERIA; EURYARCHAEOTA; METHANOCOCCALES; METHANOCOCCACEAE.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-JAL-1 / DSM 2661 / AFCC 43067;
 RX MEDLINE: 96337999.
 RA BULT C.J., WHITE O., OLSEN G.J., ZHOU L., FLEISCHMANN R.D.,
 RA SUTTON G.G., BLAKE J.A., FITZGERALD L.M., CLAYTON R.A., COCAINE J.D.,
 RA KERLAVAGE A.R., DOUGHERTY B.A., TOMB J.-F., ADAMS M.D., REICH C.I.,
 RA OVERBEER R., KIRKNESS E.F., WEINSTOCK K.G., MERRICK J.M., GLODER A.,
 RA SCOTT J.L., GEOGHAGEN N.S.M., WEIDMAN J.F., FUHRMANN J.L., NGUYEN D.,
 RA UTTERBACK T.R., KELLEY J.M., PETERSON J.D., SADOW P.W., HANNA M.C.,
 RA COTTON M.D., ROBERTS K.M., HURST M.A., RAINE B.P., BORODOVSKI M.,
 RA KLEINK H.-P., FRASER C.M., SMITH H.O., WOESE C.R., VENTER J.C.;
 RL SCIENCE 273:1058-1073(1996).
 CC -1- SIMILARITY: TO M.JANNASCHII M0080 AND M0767 AND TO E.COLI YHFG.
 DR EMBL: U67504; G1591254; -.
 KW TIGR: M0549; -.
 DE HYPOTHETICAL PROTEIN.
 SQ SEQUENCE 141 AA; 16132 MW; EB3D8804 CRC32;

Query Match 84.9%; Score 45; DB 1; Length 141;
 Best Local Similarity 50.0%; Pred. No. 8.82e+01;
 Matches 3; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Db 45 KHRWH 50
 |||||
 QY 1 KOKWQ 6

RESULT 26
 ID YCX2_YEAST STANDARD; PRT; 128 AA.
 AC P25649;
 DT 01-MAY-1992 (REL. 22, CREATED)
 DT 01-MAY-1992 (REL. 22, LAST SEQUENCE UPDATE)
 DT 01-MAY-1992 (REL. 22, LAST ANNOTATION UPDATE)
 DE HYPOTHETICAL 15.1 KD PROTEIN IN SRB8-TUP1 INTERGENIC REGION.
 GN YCR82W.
 OS SACCHAROMYCES CEREVISIAE (BAKER'S YEAST).
 OC EUKARYOTA; FUNGI; ASCOMYCOTINA; HEMIASCOMYCETES.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA FELDMANN H., MANNHAUPT G., VETTER I.;

RL SUBMITTED (MAR-1992) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: X59720; E264569; -
DR PIR: S19497; S19497.
KW HYPOTHEICAL PROTEIN.
SQ SEQUENCE 128 AA; 15117 MW; 283D25D0 CRC32;

Query Match
Best Local Similarity 80.0%; Score 44; DB 1; Length 128;
Matches 4; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 88 KOKWI 92
|||:
Oy 1 KOKWV 5

RESULT 27
ID PQOC_KLEPN STANDARD; PRT; 251 AA.
AC P27505;
DT 01-AUG-1992 (REL. 23, CREATED)
DT 01-AUG-1992 (REL. 23, LAST SEQUENCE UPDATE)
DT 01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
DE COENZYME PQQ SYNTHESIS PROTEIN C.
PQQ.
GN KLEBSIELLA PNEUMONIAE.
OS PROKARYOTA: GRACILICUTES; SCOTOBACTERIA; FACULTATIVELY ANAEROBIC RODS;
OC ENTEROBACTERIACEAE.
RN [1]
RP SEQUENCE FROM N.A.
RT STRAIN-NCTC 418;
RX MEDLINE: 92212293.
RA MELDENBERG J.J.M., SELINK E., RIEGMAN N.H., POSTMA P.W.;
RL MOL. GENET. 232:284-294(1992)
CC -1- FUNCTION: REQUIRED FOR COENZYME PYROLO-QUINOLINE-QUINONE (PQQ)
CC BIOSYNTHESIS.
CC -1- SIMILARITY: TO OTHER BACTERIAL PQQ.
DR EMBL: X58778; G43907; -
DR PIR: S20455; S20455.
KW PQQ.
SQ SEQUENCE 251 AA; 28986 MW; E5E75053 CRC32;

Query Match
Best Local Similarity 83.0%; Score 44; DB 1; Length 251;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 74 RAKWQ 79
::|||:
Oy 1 KOKWVO 6

RESULT 28
ID IL8_HUMAN STANDARD; PRT; 99 AA.
AC P10145;
DT 01-MAR-1989 (REL. 10, CREATED)
DT 01-MAR-1989 (REL. 10, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE INTERLEUKIN-8 PRECURSOR (IL-8) (MONOCYTE-DERIVED NEUTROPHIL
DE CHEMOTACTIC FACTOR) (MNCF) (T-CELL CHEMOTACTIC FACTOR) (NEUTROPHIL-
DE ACTIVATING PROTEIN 1) (NAP-1) (LYMPHOCYTE-DERIVED NEUTROPHIL-
DE ACTIVATING FACTOR) (LYNAP) (PROTEIN 3-10C) (NEUTROPHIL-ACTIVATING
DE FACTOR) (NAF) (GRANULOCYTE CHEMOTACTIC PROTEIN 1) (GCP-1) (EMOCTAKIN).
GN IL8.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA: METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUHERIA: PRIMATES.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 88258376.
RA MATSUSHIMA K., MORISHITA K., YOSHIMURA T., LAUV S., KOBAYASHI Y.,
RA LEW N., APPELLA E., KUNG H., LEONARD E.J., OPPENHEIM J.J.;
RL J. EXP. MED. 167:1883-1893(1988).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 87224164.

RA SCHMID J., WEISSMANN C.;
RL J. IMMUNOL. 139:250-256(1987).
RN [3]
RP SEQUENCE FROM N.A.
RX MEDLINE: 89313739.
RA KOMALSKI J., DENHARDT D.T.;
RL MOL. CELL. BIOL. 9:1946-1957(1989).
RN [4]
RP SEQUENCE FROM N.A.
RX MEDLINE: 89309826.
RA MUKAIDA N., SHIROO M., MATSUSHIMA K.;
RL J. IMMUNOL. 143:1366-1371(1989).
RN [5]
RP SEQUENCE FROM N.A.
RA ISHIKAWA J.;
RL SUBMITTED (JAN-1993) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [6]
RP SEQUENCE OF 23-46.
RX MEDLINE: 89246368.
RA GOLDS E.E., MASON P., NYRKOS P.;
RL BIOCHEM. J. 259:585-588(1989).
RN [7]
RP SEQUENCE OF 23-54.
RX MEDLINE: 89279141.
RA SUZUKI K., MIYASAKA H., OTA H., YAMAKAWA Y., TAGAWA M., KURAMOTO A.,
RA MIJUNO S.;
RL J. EXP. MED. 169:1895-1901(1989).
RN [8]
RP SEQUENCE OF 28-99.
RX MEDLINE: 88162914.
RA GREGORY H., YOUNG J., SCHROEDER J.M., MROWCETZ U., CHRISTOPHERS E.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 151:883-890(1988).
RN [9]
RP SEQUENCE OF 28-59.
RX MEDLINE: 88106502.
RA WALZ A., PEYER P., ASCHAUER H., BAGGIOLINI M.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 149:755-761(1987).
RN [10]
RP SEQUENCE OF 28-69.
RX MEDLINE: 88097462.
RA YOSHIMURA T., MATSUSHIMA K., TANAKA S., ROBINSON E.A., APPELLA E.,
RA OPPENHEIM J.J., LEONARD E.J.;
RL PROC. NATL. ACADE. SCI. U.S.A. 84:9233-9237(1987).
RN [11]
RP STRUCTURE BY NMR.
RX MEDLINE: 90234679.
RA CLORE G.M., APPELLA E., YAMADA M., MATSUSHIMA K., GRONENBORN A.M.;
RL BIOCHEMISTRY 29:1689-1696(1990).
RN [12]
RP X-RAY CRYSTALLOGRAPHY (1.6 ANGSTROMS).
RX MEDLINE: 90216714.
RA BALDWIN E.T., FRANKLIN K.A., APPELLA E., YAMADA M., MATSUSHIMA K.,
RA WLODAWER A., WEBER I.T.;
RL J. BIOL. CHEM. 265:6851-6853(1990).
RN [13]
RP X-RAY CRYSTALLOGRAPHY, AND STRUCTURE BY NMR.
RX MEDLINE: 91171286.
RA CLORE G.M., GRONENBORN A.M.;
RL J. MOL. BIOL. 217:611-620(1991).
RN [14]
RP X-RAY CRYSTALLOGRAPHY (1.6 ANGSTROMS), AND STRUCTURE BY NMR.
RX MEDLINE: 91110556.
RA BALDWIN E.T., WEBER I.T., ST CHARLES R., XUAN J.C., APPELLA E.,
RA YAMADA M., MATSUSHIMA K., EDWARDS B.F., CLORE G.M., GRONENBORN A.M.;
RL PROC. NATL. ACADE. SCI. U.S.A. 88:502-506(1991).
RN [15]
RP N-TERMINAL FORMS.
RX MEDLINE: 91006336.
RA VAN DAMME J., RAMPART M., CONING R., DECOCK B., VAN OSSELAER N.,
RA WILLEMS J., BILLIAU A.;
RL EUR. J. IMMUNOL. 20:2113-2118(1990).
RN [16]
RP N-TERMINAL FORMS.

RX MEDLINE: 89231715.
RA VAN DAMME J., VAN BEUMEN J., CONINGS R., DECOCK B., BILLIAU A.;
RL EUR. J. BIOCHEM. 181:337-344(1989).
RN (17)
RP SYNTHESIS OF 28-99.
RX MEDLINE: 91175767.
RA CLARK-LEWIS I., MOSE B., WALZ A., BAGGIOLINI M., SCOTT G.J.,
RL BIOCHEMISTRY 30:3128-3135(1991).
RN (18)
RP REVIEW.
RX MEDLINE: 92347562.
RA BAGGIOLINI M., CLARK-LEWIS I.;
RL FEBS LETT. 307:97-101(1992).
CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
RESPONSE TO AN INFLAMMATORY STIMULUS.
CC -1- SUBUNIT: HOMODIMER.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
C-X-C) (CHEMOKINE CXC).
CC EMBL: Y00787; G34519; -;
DR EMBL: M17017; G179580; -;
DR EMBL: M26383; G188628; -;
DR EMBL: M28130; G186368; -;
DR EMBL: D14283; G219916; -;
DR PIR: A37034; A37034.
DR PIR: S03975; S03975.
DR PIR: S04216; S04216.
DR PDB: 1IL8; 15-JAN-91.
DR PDB: 2IL8; 15-JAN-91.
DR PDB: 3IL8; 15-OCT-92.
DR PDB: 1ICW; 12-MAR-97.
DR PDB: 1IKL; 15-OCT-95.
DR PDB: 1IKM; 15-OCT-95.
DR MIM: 146930; -;
DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; 1.
KW CYTOKINE; CHEMOKINIS; INFLAMMATORY RESPONSE; SIGNAL; 3D-STRUCTURE.
FT SIGNAL 1 22
FT CHAIN 1 23
FT PROPE 23 30
FT DISULFID 34 61
FT DISULFID 36 77
FT CONFLICT 53 53
FT HELIX 46 48
FT STRAND 49 55
FT STRAND 58 58
FT TURN 59 60
FT STRAND 61 61
FT STRAND 65 70
FT TURN 71 72
FT STRAND 75 78
FT TURN 80 81
FT HELIX 83 97
FT TURN 98 98
SQ SEQUENCE 99 AA; 11098 MW; 89D1891F CRC32;
Query Match 81.1%; Score 43; DB 1; Length 99;
Best Local Similarity 66.7%; Pred. No. 1.78e+02;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

DE SERUM AMYLOID A-3 PROTEIN PRECURSOR.
GN SAA3.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RA MEDLINE: 86120372.
RA STEARMAN R.S., LOWELL C.A., PELTZMAN C.G., MORROW J.F.;
RL NUCLEIC ACIDS RES. 14:797-809(1986).
RN [2]
RP SEQUENCE FROM N.A.
RC STRAIN-SWISS.
RX MEDLINE: 86250747.
RA LOWELL C.A., POTTER D.A., STEARMAN R.S., MORROW J.F.;
RL J. BIOL. CHEM. 261:8442-8452(1986).
RN [3]
RP SEQUENCE OF 27-64 FROM N.A.
RC STRAIN-BALB/C; TISSUE-LIVER;
RX MEDLINE: 82229376.
RA STEARMAN R.S., LOWELL C.A., PEARSON W.R., MORROW J.F.;
RL ANN. N.Y. ACAD. SCI. 389:106-115(1982).
RN [4]
RP SEQUENCE OF 32-122 FROM N.A.
RX MEDLINE: 87309776.
RA YAMAMOTO K.I., GOTO N., KOSAKA J., SHIROO M., YEUL Y.D., MIGITA S.;
RL J. IMMUNOL. 139:1683-1688(1987).
CC -1- FUNCTION: MAJOR ACUTE PHASE REACTANT. APOLIPOPROTEIN OF THE HDL
COMPLEX.
CC -1- TISSUE SPECIFICITY: FOUND IN VARIOUS TISSUES.
CC -1- INDUCTION: UPON CYTOKINE STIMULATION.
CC -1- DISEASE: REACTIVE, SECONDARY AMYLOIDOSIS IS CHARACTERIZED BY THE
EXTRACELLULAR ACCUMULATION IN VARIOUS TISSUES OF THE SAA PROTEIN.
CC THESE DEPOSITS ARE HIGHLY INSOLUBLE AND RESISTANT TO PROTEOLYSIS;
CC THEY DISRUPT TISSUE STRUCTURE AND COMPROMISE FUNCTION.
CC -1- SIMILARITY: BELONGS TO THE SAA FAMILY.
DR EMBL: X03479; G817998; -;
DR EMBL: X03505; G762988; -;
DR EMBL: X03506; G762988; JOINED.
DR EMBL: X03507; G762988; JOINED.
DR EMBL: M25467; G191930; -;
DR EMBL: M17792; G200919; -;
DR PIR: A23521; A23521.
DR PIR: C23843; C23843.
DR MGD: MGI:98223; SAA3.
DR PROSITE: PS00992; SAA; 1.
KW ACUTE PHASE; PLASMA; HDL; AMYLOID; SIGNAL; MULTIGENE FAMILY.
FT SIGNAL 1 19
FT CHAIN 1 20
FT CONFLICT 57 57
SQ SEQUENCE 122 AA; 13773 MW; F6574A21 CRC32;
Query Match 81.1%; Score 43; DB 1; Length 122;
Best Local Similarity 80.0%; Pred. No. 1.78e+02;
Matches 4; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 81 KENWVQ 86
1:1111
QY 1 KOKWVQ 6

RESULT 30
ID PFLA_ECOLI STANDARD: PRT: 245 AA.
AC P09374;
DT 01-MAR-1989 (REL. 10, CREATED)
DT 01-MAR-1989 (REL. 10, LAST SEQUENCE UPDATE)
DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
DE PYROVATE FORMATE-LYASE 1 ACTIVATING ENZYME (EC 1.97.1.4).
GN PFLA OR ACT.
OS ESCHERICHIA COLI.
OC PROKARYOTA; GRACILICUTES; SCOTOBACTERIA; FACULTATIVELY ANAEROBIC RODS;
OC ENTEROBACTERIACEAE.
RN [1]

RP SEQUENCE FROM N.A.
RC STRAIN-K12;
RX MEDLINE; 89030680.
RA ROEDEL W., PLAGA W., FRANK R., KNAPPE J.;
RL EUR. J. BIOCHEM. 177:153-158(1988).
RN [2]
RP SEQUENCE FROM N.A.
RC STRAIN-K12 / MG1655;
RA BLATTNER F.R., PLUNKETT G. III, MAYHEW G.F., PERNA N.T., GLASNER F.D.;
RL SUBMITTED (JAN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [3]
RP SEQUENCE FROM N.A.
RC STRAIN-K12;
RX MEDLINE; 97061202.
RA OSHIMA T., AIBA H., BABA T., FUJITA K., HAYASHI K., HONJO A.,
RA IKEMOTO K., INADA T., ITOH T., KAJIHARA M., KANAI K.,
RA KASHIMOTO K., KIMURA S., KITAGAWA M., MAKINO K., MASUDA S.,
RA MIKI T., MIZOBUCHI K., MORI H., MOTOMURA K., NAKAMURA Y.,
RA NASHIMOTO H., NISHIO Y., SAITO N., SAMEI G., SEKI Y., TAGAMI H.,
RA TAKEMOTO K., WADA C., YAMAMOTO Y., YANO M., HORIUCHI T.;
RL DNA RES. 3:137-155(1996).
CC -1- FUNCTION: ACTIVATION OF PYRUVATE FORMATE-LYASE 1 UNDER ANAEROBIC
CC CONDITIONS BY GENERATION OF AN ORGANIC FREE RADICAL, USING
CC S-ADENOSYLMETHIONINE AND REDUCED FLAVODOXIN AS COSUBSTRATES TO
CC PRODUCE 5'-DEOXY-ADENOSINE.
CC -1- CATALYTIC ACTIVITY: S-ADENOSYL-L-METHIONINE + DIHYDROFLAVODOXIN +
CC [PYRUVATE FORMATE-LYASE]-GLYCINE - 5'-DEOXYADENOSINE + METHIONINE
CC + FLAVODOXIN + [PYRUVATE FORMATE-LYASE]-GLYCINE RADICAL.
CC -1- COFACTOR: IRON-DEPENDENT.
CC -1- SUBCELLULAR LOCATION: CYTOPLASMIC.
CC -1- SIMILARITY: BELONGS TO THE ORGANIC RADICAL ACTIVATING ENZYMES
CC FAMILY.
DR EMBL; X08035; G42371; -;
DR EMBL; AE000192; G1787130; -;
DR EMBL; D90728; G1651426; -;
DR PIR; S01789; S01789.
DR ECOGENE; EG10028; PFLA.
DR PROSITE; PS01087; RADICAL_ACTIVATING; 1.
KW OXIDOREDUCTASE; IRON; GLUCOSE METABOLISM.
FT INIT_MET 0
FT METAL 29 IRON (POTENTIAL).
FT METAL 33 IRON (POTENTIAL).
FT METAL 36 IRON (POTENTIAL).
SQ SEQUENCE 245 AA; 28073 MW; 3D9FD679 CRC32;
Query Match 81.1%; Score 43; DB 1; Length 245;
Best Local Similarity 80.0%; Pred. No. 1.78e+02;
Matches 4; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Search completed: Thu Apr 1 07:31:17 1999
Job time : 10 secs.

94 42 79.2 809 2 059086 OUNATE DEHYDROGENASE 5.31e+02
 95 42 79.2 846 11 063803 XIAS. 5.31e+02
 96 42 79.2 1053 2 084834 RIBONUCLEOSIDE REDUCTA 5.31e+02
 97 42 79.2 1253 5 019523 FL7C8.1. 5.31e+02
 98 42 79.2 1638 5 061529 GUANINE NUCLEOTIDE EXC 5.31e+02
 99 42 79.2 2182 5 026034 VARIANT-SPECIFIC SURFA 5.31e+02
 100 42 79.2 2488 5 061528 GUANINE NUCLEOTIDE EXC 5.31e+02

ALIGNMENTS

RESULT 1
 ID 023536 PRELIMINARY: PRT: 192 AA.

AC 023536: 01-JAN-1998 (TREMBLREL. 05, CREATED)
 DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
 DE 01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
 DE RESISTANCE GENE HOMOLOG.
 OS ARABIDOPSIS THALIANA (MOUSE-EAR CRESS).
 OC EUKARYOTA: VIRIDIDPLANTAE: CHAROPHYTA/EMBRYOPHYTA GROUP: EMBRYOPHYTA:
 TRACHEOPHYTA: EUPHYLIOPHYTES: SPERMATOPHYTA: MAGNOLIOPHYTA:
 OC EUDICOTYLEDOONS: ROSIDAE: CAPPARALEIS: BRASSICACEAE: ARABIDOPSIS.
 [1]
 RP SEQUENCE FROM N.A.
 RA BEVAN M., STIEKEMA W., MURPHY G., MAMBUUT R., POHL T., TERRYN N.,
 RA KREIS M., KAVANACH T., ENTIAN K.D., RIEGER M., JAMES R.,
 RA PUTDOMEHNECH P., HATZIOPOULOS P., OBERMAIER B., DUESTERHOFF A.,
 RA JONES J., PALME K., ANSGORGE W., DELSENY M., BANCROFT I., MEMES H.W.,
 RA SCHUELLER C., CHALMARTZIS N.;
 RL SUBMITTED (JUL-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 [2]
 RN SEQUENCE FROM N.A.
 RP EU ARABIDOPSIS SEQUENCING PROJECT, ESSA;
 RA SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: 297342; E327026;
 SQ SEQUENCE 192 AA: 21535 MW: 7BD51863 CRC32;

Query Match 94.3%; Score 50; DB 10; Length 192;
 Best Local Similarity 83.3%; Pred. No. 2.75e+01;

Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 139 KORWVO 144
 |||||
 QY 1 KORWVO 6

RESULT 2
 ID 004264 PRELIMINARY: PRT: 1361 AA.

AC 004264: 01-JUL-1997 (TREMBLREL. 04, CREATED)
 DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE DOWNY MILDEW RESISTANCE PROTEIN RPP5.
 GN RPP5.
 OS ARABIDOPSIS THALIANA (MOUSE-EAR CRESS).
 OC EUKARYOTA: VIRIDIDPLANTAE: CHAROPHYTA/EMBRYOPHYTA GROUP: EMBRYOPHYTA:
 TRACHEOPHYTA: EUPHYLIOPHYTES: SPERMATOPHYTA: MAGNOLIOPHYTA:
 OC EUDICOTYLEDOONS: ROSIDAE: CAPPARALEIS: BRASSICACEAE: ARABIDOPSIS.
 [1]
 RN SEQUENCE FROM N.A.
 RP STRAIN-LANDSBERG ERECTA;
 RA PARKER J.E., COLEMAN M.J., SZABO V., FROST L.N., SCHMIDT R.,
 RA DER BIEZEN E.A., MOORES T., DEAN C., DANIELS M.J., JONES J.D.G.;
 RL PLANT CELL 0:0-0(0).
 DR EMBL: U97106; G2109275; -;
 DR PFAM: PF00560; LRR: 8;
 DR PFAM: PF00931; NB-ARC: 1;
 SQ SEQUENCE 1361 AA: 154366 MW: 022C612B CRC32;

Query Match 94.3%; Score 50; DB 10; Length 1361;
 Best Local Similarity 83.3%; Pred. No. 2.75e+01;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 139 KORWVO 144
 |||||
 QY 1 KORWVO 6

RESULT 3
 ID 015630 PRELIMINARY: PRT: 324 AA.

AC 015630: 01-NOV-1996 (TREMBLREL. 01, CREATED)
 DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE TRANSCRIPTION FACTOR.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA: METAZOA: CHORDATA: VERTEBRATA: MAMMALIA: EUTHERIA: PRIMATES;
 OC CATARRHINI: HOMINIDAE: HOMO.
 [1]
 RN SEQUENCE FROM N.A.
 RP TISSUE-BLOOD;
 RC MEDLINE: 9406011.
 RX DIXON B., SARELY B., LIU L., POHAJDAK B.;
 RA "Cloning a cDNA from human NK/T cells which codes for an unusual
 RT leucine zipper containing protein."
 RL BIOCHIM. BIOPHYS. ACTA 1216:321-324(1993).
 DR EMBL: L06633; G431328; -;
 DR PFAM: PF00595; PDZ: 1;
 SQ SEQUENCE 324 AA: 36318 MW: 5F2344EC CRC32;

Query Match 92.5%; Score 49; DB 4; Length 324;
 Best Local Similarity 83.3%; Pred. No. 4.06e+01;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 151 KORWVE 156
 |||||
 QY 1 KORWVO 6

RESULT 4
 ID 060759 PRELIMINARY: PRT: 359 AA.

AC 060759: 01-AUG-1998 (TREMBLREL. 07, CREATED)
 DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
 DT 01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
 DE CYTOSOLIN BINDING PROTEIN HE.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA: METAZOA: CHORDATA: VERTEBRATA: MAMMALIA: EUTHERIA: PRIMATES;
 OC CATARRHINI: HOMINIDAE: HOMO.
 [1]
 RN SEQUENCE FROM N.A.
 RP HEUFELER C.;
 RA SUBMITTED (MAY-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: AF068836; G3192909; -;
 SQ SEQUENCE 359 AA: 40009 MW: 19DB9FC9 CRC32;

Query Match 92.5%; Score 49; DB 4; Length 359;
 Best Local Similarity 83.3%; Pred. No. 4.06e+01;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 186 KORWVE 191
 |||||
 QY 1 KORWVO 6

RESULT 5
 ID 035188 PRELIMINARY: PRT: 395 AA.

AC 035188: 01-JAN-1998 (TREMBLREL. 05, CREATED)
 DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE NEUROTACTIN.
 GN SCYD1.
 OS MUS MUSCULUS (MOUSE).
 OC EUKARYOTA: METAZOA: CHORDATA: VERTEBRATA: MAMMALIA: EUTHERIA: RODENTIA;
 OC SCIROGNATHI: MORIDAE: MORINAE: MOS.

RT fertilization protein[published erratum appears in Science 1995 Aug

KT 25;269(5227):11201.
 RL SCIENCE.269:86-88(1995).
 DR EMBL; 017108; G897563; .
 DR MGI; 104965; 2P3R.
 DR PFAM; PF00084; sushi; 7.

KM SIGNAL. 1 32 POTENTIAL.
 FT CHAIN 33 579 SPERM FERTILIZATION PROTEIN SP56.
 SQ SEQUENCE 579 AA; 64950 MW; 596D33DD CRC32.

Query Match 88.7%; Score 47; DB 11; Length 579;
 Best Local Similarity 66.7%; Pred. No. 8.70e+01;
 Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 556 KKWVQ 561
 1:11:1
 QY 1 KKWVQ 6

RESULT 10
 ID 057411 PRELIMINARY; PRT; 97 AA.
 AC 057411;
 DT 01-JUN-1998 (TREMBLREL. 06, CREATED)
 DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
 DT 01-JUN-1998 (TREMBLREL. 06, LAST ANNOTATION UPDATE)
 DE LYMPHOTACTIN PRECURSOR.
 OS GALLUS GALLUS (CHICKEN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; ARCHOSAURIA; AVES;
 OC NEOGNATHAE; GALLIFORMES; PHASIANIDAE; PHASIANINAE; GALLUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE=SPLEEN;
 RA ROSSI D.L., BAZAN J.F., ZLOTNIK A.;
 RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL; AF006742; G2827882; .
 KW SIGNAL.
 FT SIGNAL. 1 24 POTENTIAL.
 FT CHAIN 25 97 LYMPHOTACTIN.
 SQ SEQUENCE 97 AA; 11131 MW; 3290101C CRC32;

Query Match 86.8%; Score 46; DB 13; Length 97;
 Best Local Similarity 100.0%; Pred. No. 1.26e+02;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 78 QKWVQ 82
 11111
 QY 2 QKWVQ 6

RESULT 11
 ID 051136 PRELIMINARY; PRT; 172 AA.
 AC 051136;
 DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
 DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE H11054 HOMOLOG (FRAGMENT).
 OS NEISSERIA MENINGITIDIS.
 OC BACTERIA; PROTOBACTERIA; BETA SUBDIVISION; NEISSERIACEAE; NEISSERIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN=M1080;
 RX MEDLINE; 96326323.
 RA ERWIN A.L., GOTSCHICH E.C.;
 RT "Cloning of a Neisseria meningitidis gene for L-lactate dehydrogenase (L-LDH): evidence for a second meningococcal L-LDH with different regulation.";
 DR J. BACTERIOL. 178:4807-4813(1996).
 FT EMBL; U58911; G1381738; .
 SQ SEQUENCE 172 AA; 19765 MW; 85C8B90D CRC32;

Query Match 86.8%; Score 46; DB 2; Length 172;

Best Local Similarity 100.0%; Pred. No. 1.26e+02;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 4 KKWV 8
 11111
 QY 1 KKWV 5

RESULT 12
 ID 083516 PRELIMINARY; PRT; 187 AA.
 AC 083516;
 DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE HYPOTHETICAL 21.4 KD PROTEIN.
 GN TP0503.
 OS TREPONEMA PALLIDUM.
 OC BACTERIA; SPIROCHAETALES; SPIROCHAETACEAE; TREPONEMA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 98332770.
 RA FRASER C.M., NORRIS S.J., WEINSTOCK G.M., WHITE O., SUTTON G.G.,
 RA DODSON R., GWINN M., HICKEY E.K., CLAYTON R., KETCHUM K.A.,
 RA SODERGREN E., HARDHAM J.M., MCLEOD M.P., SALZBERG S., PETERSON J.,
 RA KHALAK H., RICHARDSON D., HOWELL J.K., CHIDAMBARAM M., UTERBACK T.,
 RA MCDONALD L., ARTICH P., BOWMAN C., COTTON M.D., FUJII C., GARLAND S.,
 RA HATCH B., HORST K., ROBERTS K., WATTHEY L., WEIDMAN J., SMITH H.O.,
 RA VENTER J.C.;
 RT "Complete genome sequence of Treponema pallidum, the syphilis agent Spirochete.";
 RL SCIENCE 281:375-388(1998).
 RN [2]
 RP SEQUENCE FROM N.A.
 RA FRASER C.M., NORRIS S.J., WEINSTOCK G.M., WHITE O., SUTTON G.G.,
 RA DODSON R., GWINN M., HICKEY E.K., CLAYTON R., KETCHUM K.A.,
 RA SODERGREN E., HARDHAM J.M., MCLEOD M.P., SALZBERG S., PETERSON J.,
 RA KHALAK H., RICHARDSON D., HOWELL J.K., CHIDAMBARAM M., UTERBACK T.,
 RA MCDONALD L., ARTICH P., BOWMAN C., COTTON M.D., FUJII C., GARLAND S.,
 RA HATCH B., HORST K., ROBERTS K., WATTHEY L., WEIDMAN J., SMITH H.O.,
 RA VENTER J.C.;
 RL SUBMITTED (MAR-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL; AE001226; G3322795; .
 KW HYPOTHETICAL PROTEIN.
 SQ SEQUENCE 187 AA; 21410 MW; 50303E26 CRC32;

Query Match 86.8%; Score 46; DB 2; Length 187;
 Best Local Similarity 100.0%; Pred. No. 1.26e+02;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 37 QKWVQ 41
 11111
 QY 2 QKWVQ 6

RESULT 13
 ID 067646 PRELIMINARY; PRT; 289 AA.
 AC 067646;
 DT 01-AUG-1998 (TREMBLREL. 07, CREATED)
 DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE LEUCYL-TRNA SYNTHETASE BETA SUBUNIT.
 GN LEUS.
 OS AQUIFEX AEOLICUS.
 OC BACTERIA; AQUIFICALES; AQUIFICACEAE; AQUIFEX.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN=VF5;
 RX MEDLINE; 98196666.
 RA DECKERT G., WARREN P.V., GAASTERLAND T., YOUNG W.G., LENOX A.L.,
 RA GRAHAM D.E., OVERBEK R., SNEAD M.A., KELLER M., ADAY M., HUBER R.,
 RA FELDMAN R.A., SHORT J.M., OLSON G.J., SWANSON R.V.;
 RT "The complete genome of the hyperthermophilic bacterium Aquifex aeolicus.";

RL NATURE 392:353-358(1998).
RM [2]
RP SEQUENCE FROM N.A.
RC STRAIN-VF5;
RA DECKERT G., WARREN P.V., GASTERLAND T., YOUNG W.G., LENOX A.L.,
RA GRAHAM D.E., OVERBEEK R., SNEAD M.A., KELLER M., AJAYI M., HUBER R.,
RA FELDMAN R.A., SHORT J.M., OLSON G.J., SWANSON R.V.;
RL SUBMITTED (JUL-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: AE000735; G2984068; -
KW AMINOACYL-TRNA SYNTHETASE.
SQ SEQUENCE 289 AA; 33535 MW; 65FB9A21 CRC32;

Query Match 86.8%; Score 46; DB 2; Length 289;
Best Local Similarity 100.0%; Pred. No. 1.26e+02;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 265 OKWVQ 269
|1111|
QY 2 OKWVQ 6

RESULT 14
ID 057833 PRELIMINARY; PRT; 334 AA.
AC 057833;
DT 01-AUG-1998 (TREMBLREL. 07, CREATED)
DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
DE 01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
DE 334NA LONG HYPOTHETICAL PROTEIN.
GN PHCXL12.
OS PYROCOCUS HORIKOSHII.
OC ARCHAEE: EURYARCHAEOTA; THERMOCOCCALES; THERMOCOCCACEAE; PYROCOCUS.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-013;
RA KAMARABAYASI Y., SAWADA M., HORIKAWA H., HAIKAWA Y., HINO Y.,
RA YAMAMOTO S., SEKINE M., BABA S., KOSUGI H., HOSOGAMA A., NAGAI Y.,
RA SAKAI M., OGURA K., OTSUKA R., NAKAZAWA H., TAKAMITA M., OHFUKU Y.,
RA FUNAHASHI T., TANAKA T., KUDOH Y., YANAZAKI J., KUSHIDA N., OGUCHI A.,
RA AOKI K., YOSHIZAWA T., NAKAMURA Y., MASUCHI Y., SHIZUYA H.,
RA KIKUCHI H.;
RL SUBMITTED (DEC-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: AB009467; D1027216; -
SQ SEQUENCE 334 AA; 36602 MW; 6F4BA2B5 CRC32;

Query Match 86.8%; Score 46; DB 1; Length 334;
Best Local Similarity 66.7%; Pred. No. 1.26e+02;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 290 KKKVW 295
|1111|
QY 1 KKKVW 6

RESULT 15
ID 076961 PRELIMINARY; PRT; 403 AA.
AC 076961;
DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE CALRETTICULIN PRECURSOR.
GN CRT
OS NECATOR AMERICANDUS.
OC EUKARYOTA; METAZOA; NEMATODA; SECERNENTEA; RHABDITIA; STRONGYLIDA;
OC ANCILOSTOMATOIDEA; ANCILOSTOMATIDAE; BUNOSTOMINAE; NECATOR.
RN [1]
RP SEQUENCE FROM N.A.
RA PRITCHARD D.I., BROWN A., MCLEROY P., LOUKAS A., GIRDWOOD K.,
RA BERRY C., FULKRUG R., BECK E.;
RT "Calreticulin is a hookworm allergen."
RL SUBMITTED (JUN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: AJ006790; E1300555; -
DR PROSITE: PS00803; CALRETTICULIN_1; 1.
DR PROSITE: PS00804; CALRETTICULIN_2; 1.

DR PROSITE: PS00805; CALRETTICULIN_REPEAT; 3.
KM SIGNAL; ALLERGEN.
FT SIGNAL 1
SQ SEQUENCE 403 AA; 46833 MW; B94E0D6A CRC32;

Query Match 86.8%; Score 46; DB 5; Length 403;
Best Local Similarity 66.7%; Pred. No. 1.26e+02;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 30 KKKVQ 35
|1111|
QY 1 KKKVQ 6

RESULT 16
ID 041898 PRELIMINARY; PRT; 421 AA.
AC 041898;
DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE POLYPROTEIN (FRAGMENT).
OS RICE NECROSIS MOSAIC VIRUS.
OC VIRUSES; SSRNA POSITIVE-STRAND VIRUSES, NO DNA STAGE; POTYVIRIDAE;
OC BYMOVIRUS.
RN [1]
RP SEQUENCE FROM N.A.
RA BADGE J.L., KASHIMAZAKI S., LOCK S., FOSTER G.D.;
RL EUR. J. PLANT PATHOL. 0:0-0(1997).
DR EMBL: U95205; G2443461; -
DR PFAM: PF00767; Poty-coat; 1.
KW POLYPROTEIN.
FT NON_TER 1
SQ SEQUENCE 421 AA; 47711 MW; 6FE8B9A5 CRC32;

Query Match 86.8%; Score 46; DB 14; Length 421;
Best Local Similarity 100.0%; Pred. No. 1.26e+02;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 254 OKWVQ 258
|1111|
QY 2 OKWVQ 6

RESULT 17
ID 045303 PRELIMINARY; PRT; 912 AA.
AC 045303; 045877;
DT 01-JUN-1998 (TREMBLREL. 06, CREATED)
DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE C45G3.3 PROTEIN.
GN C45G3.3.
OS CAENORHABDITIS ELEGANS.
OC EUKARYOTA; METAZOA; NEMATODA; SECERNENTEA; RHABDITIA; RHABDITIDA;
OC RHABDITINA; RHABDITOIDEA; RHABDITIDAE; PELODERINAE; CAENORHABDITIS.
RN [1]
RP SEQUENCE FROM N.A.
RA BARLOW K.;
RL SUBMITTED (NOV-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 94130718.
RA WILSON R., AINSCOUGH R., ANDERSON K., BAYNES C., BERKS M., BONFIELD J.,
RA BURTON J., CONNELL M., COPESEY T., COOPER J., COULSON A., CRAYTON M.,
RA DEAR S., DG Z., DURBIN R., FAYELLO A., FULTON L., GARDNER A., GREEN P.,
RA HAWKINS T., HILLIER L., JIER M., JOHNSTON L., JONES M., KERSHAW J.,
RA KIRSTEN J., LAISTER N., LATREILLE P., LIGHTING J., LLOYD C.,
RA MCWIRRAY A., MORTIMORE B., O'CALLAGHAN M., PARSONS J., PERCY C.,
RA RIEKEN L., ROOPRA A., SAUNDERS D., SHOWNKEEN R., SWALDON N., SMITH A.,
RA SONNHAMMER E., STADEN R., SULSTON J., THIERRY-MIEG J., THOMAS K.,
RA VAUDIN M., VAUGHAN K., WATERSTON R., WATSON A., WEINSTOCK L.,
RA WILKINSON-SPROAT J., WOHLDMAN P.;
RT "2.2 Mb of contiguous nucleotide sequence from chromosome III of C. elegans.";

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RL NATURE 368:32-36(1994).
RN [3]
RA SEQUENCE FROM N.A.
RP SUBMITTED (NOV-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
RL EMBL: 292780; E1321927; -.
DR EMBL: AL021466; E1319927; JOINED.
DR EMBL: AL021466; E1315522; -.
DR EMBL: 292780; E1315522; JOINED.
SQ SEQUENCE 912 AA; 104030 MW; 1299986C CRC32;

Query Match
Best Local Similarity 100.0%; Score 46; DB 5; Length 912;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 821 KOKWV 825
OY 1 KOKWV 5

RESULT 18
ID P78363 PRELIMINARY; PRT: 2273 AA.
AC P78363;
DT 01-MAY-1997 (TREMBLREL. 03, CREATED)
DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE ATP-BINDING CASSETTE TRANSPORTER.
GN ABCR.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
CC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 97207641.
RA ALLIKMETS R., SINGH N., SUN H., SHROYER N.F., HUTCHINSON A.,
RA CHIDAMBARAM A., GERRARD B., BAIRD L., STAUFFER D., PEIFFER A.,
RA RATTNER A., SMALLWOOD P., LI Y., ANDERSON K.L., LEWIS R.A., NATHANS J.,
RA LEPPER M., DEAN M., LIPSKE J.R.;
RT "A photoreceptor cell-specific ATP-binding transporter gene (ABCR) is
RT mutated in recessive Stargardt macular dystrophy."
RL NAT. GENET. 15:236-246(1997).
DR EMBL: U88667; G1888527; -.
KM ATP-BINDING.
SQ SEQUENCE 2273 AA; 256042 MW; EB380008 CRC32;

Query Match
Best Local Similarity 86.8%; Score 46; DB 4; Length 2273;
Matches 5; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 1476 KOKWQ 1481
OY 1 KOKWQ 6

RESULT 19
ID 015112 PRELIMINARY; PRT: 2273 AA.
AC 015112;
DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE ATP-BINDING CASSETTE TRANSPORTER.
GN ABCR.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
CC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 97345663.
RA AZARIAN S.M., TRAVIS G.H.;
RT "The photoreceptor rim protein is an ABC transporter encoded by the
RT gene for recessive Stargardt's disease (ABCR).";
RL FEBS LETT. 409:247-252(1997).
RN [2]

RP SEQUENCE FROM N.A.
RA AZARIAN S.M., TRAVIS G.H.;
RL SUBMITTED (APR-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [3]
RP SEQUENCE FROM N.A.
RA AZARIAN S.M., TRAVIS G.H.;
RL SUBMITTED (JUN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: AF000148; G3243082; -.
DR PFWM: PF000005; ABC_tran; 2.
KV ATP-BINDING.
SQ SEQUENCE 2273 AA; 255948 MW; EEB83A0D CRC32;

Query Match
Best Local Similarity 86.8%; Score 46; DB 4; Length 2273;
Matches 5; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 1476 KOKWQ 1481
OY 1 KOKWQ 6

RESULT 20
ID 060438 PRELIMINARY; PRT: 2273 AA.
AC 060438;
DT 01-AUG-1998 (TREMBLREL. 07, CREATED)
DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE RIM ABC TRANSPORTER.
GN ABCR.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
CC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 98141123.
RA NASONKIN I., ILLING M., KOEHLER M.R., SCHMID M., MOLDAY R.S.,
RA WEBER B.H.;
RT "Mapping of the rod photoreceptor ABC transporter (ABCR) to 1p21-p22.1
RT and identification of novel mutations in Stargardt's disease."
RL HUM. GENET. 102:21-26(1998).
RN [2]
RP SEQUENCE FROM N.A.
RA NASONKIN I., ILLING M.E., MOLDAY R.S.;
RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: AF001945; G2959643; -.
SQ SEQUENCE 2273 AA; 255991 MW; D8A82C98 CRC32;

Query Match
Best Local Similarity 86.8%; Score 46; DB 4; Length 2273;
Matches 5; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 1476 KOKWQ 1481
OY 1 KOKWQ 6

RESULT 21
ID 060915 PRELIMINARY; PRT: 2273 AA.
AC 060915;
DT 01-AUG-1998 (TREMBLREL. 07, CREATED)
DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE ABCR.
GN ABCR.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
CC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 98163759.
RA GERBER S., ROZET J.M., VAN DE POL T.J.R., HOYING C.B., MUNNICH A.,
RA BLANKENAGEL A., KAPLAN J., CREMERS F.P.M.;
RT "Complete exon-intron structure of the retina-specific ATP binding

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RT transporter gene (ABCR) allows the identification of novel mutations
RT underlying Stargardt disease";
RT GENOMICS 46:139-142(1986).
DR EMBL: Y15635: E1283231: JOINED.
DR EMBL: Y15637: E1283231: JOINED.
DR EMBL: Y15638: E1283231: JOINED.
DR EMBL: Y15639: E1283231: JOINED.
DR EMBL: Y15640: E1283231: JOINED.
DR EMBL: Y15641: E1283231: JOINED.
DR EMBL: Y15642: E1283231: JOINED.
DR EMBL: Y15643: E1283231: JOINED.
DR EMBL: Y15644: E1283231: JOINED.
DR EMBL: Y15645: E1283231: JOINED.
DR EMBL: Y15646: E1283231: JOINED.
DR EMBL: Y15647: E1283231: JOINED.
DR EMBL: Y15648: E1283231: JOINED.
DR EMBL: Y15649: E1283231: JOINED.
DR EMBL: Y15650: E1283231: JOINED.
DR EMBL: Y15651: E1283231: JOINED.
DR EMBL: Y15652: E1283231: JOINED.
DR EMBL: Y15653: E1283231: JOINED.
DR EMBL: Y15654: E1283231: JOINED.
DR EMBL: Y15655: E1283231: JOINED.
DR EMBL: Y15656: E1283231: JOINED.
DR EMBL: Y15657: E1283231: JOINED.
DR EMBL: Y15658: E1283231: JOINED.
DR EMBL: Y15659: E1283231: JOINED.
DR EMBL: Y15660: E1283231: JOINED.
DR EMBL: Y15661: E1283231: JOINED.
DR EMBL: Y15662: E1283231: JOINED.
DR EMBL: Y15663: E1283231: JOINED.
DR EMBL: Y15664: E1283231: JOINED.
DR EMBL: Y15665: E1283231: JOINED.
DR EMBL: Y15666: E1283231: JOINED.
DR EMBL: Y15667: E1283231: JOINED.
DR EMBL: Y15668: E1283231: JOINED.
DR EMBL: Y15669: E1283231: JOINED.
DR EMBL: Y15670: E1283231: JOINED.
DR EMBL: Y15671: E1283231: JOINED.
DR EMBL: Y15672: E1283231: JOINED.
DR EMBL: Y15673: E1283231: JOINED.
DR EMBL: Y15674: E1283231: JOINED.
DR EMBL: Y15675: E1283231: JOINED.
DR EMBL: Y15676: E1283231: JOINED.
DR EMBL: Y15677: E1283231: JOINED.
DR EMBL: Y15678: E1283231: JOINED.
DR EMBL: Y15679: E1283231: JOINED.
DR EMBL: Y15680: E1283231: JOINED.
DR EMBL: Y15681: E1283231: JOINED.
DR EMBL: Y15682: E1283231: JOINED.
DR EMBL: Y15683: E1283231: JOINED.
DR EMBL: Y15684: E1283231: JOINED.
SO SEQUENCE 2273 AA; 255990 MW; 2FEF0D85 CRC32;
Query Match 86.8%; Score 46; DB 4; Length 2273;
Best Local Similarity 83.3%; Pred. No. 1.26e+02;
Matches 5; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
DB 1476 KOKWTO 1481
OY 1 KOKWVO 6
RESULT 22
ID 000175 PRELIMINARY; PRT; 119 AA.
AC 000175;
DT 01-JUL-1997 (TREMBLREL. 04, CREATED)
TM 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE MP12-2.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;

OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RA PATEL V.P., KREIDER B.L., LI Y., LI H., LEUNG K., SALCEDO T.,
RA NARDELLI B., PIPPALA V., GENTZ S., THORAKURA R., PARMELEE D.,
RA GENTZ R., GAROTTA G.,
RL J. EXP. MED. 0:0-0(0).
DR EMBL: 085768; G1916252; -.
DR PFAM: PF00048; 118; 1.
SQ SEQUENCE 119 AA; 13119 MW; CDF526F0 CRC32;
Query Match 84.9%; Score 45; DB 4; Length 119;
Best Local Similarity 83.3%; Pred. No. 1.83e+02;
Matches 5; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
DB 78 KOWWQ 83
OY 1 KOKWVO 6
RESULT 23
ID 031562 PRELIMINARY; PRT; 178 AA.
AC 031562;
DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE YF1T PROTEIN.
GN YF1T.
OS BACILLUS SUBTILIS.
OC BACTERIA; FIRMICUTES; BACILLUS/CLOSTRIDIUM GROUP; BACILLACEAE;
OC BACILLUS.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-168;
RX MEDLINE; 98044033.
RA KUNST F., OGASAWARA N., MOSZER I., ALBERTINI A.M., ALLONTI G.,
RA AZEVEDO V., BERTERO M.G., BESSIERES P., BOLOTIN A., BORCHERT S.,
RA BORRIS R., BOURSIER L., BRANS A., BRADON M., BRIGNELL S.C., BRON S.,
RA BROUILLET S., BROUSCH C.V., CALDWELL B., CAPUANO V., CARTER N.M.,
RA CHOI S.K., CODANI J.J., CONNERTON I.F., CUMINGS N.J., DANIEL R.A.,
RA DENIZOT F., DEVINE K.M., DUSTERHOFT A., EHRLICH S.D., EMERSON P.T.,
RA ENTJAN K.D., ERRINGTON J., FARET C., FERRARI E., FOUGER D., FRITZ C.,
RA FUJITA M., FUJITA Y., FUWA S., GALIZZI A., GALLERON N., GHIM S.T.,
RA GLASER P., GOFFEAU A., GOLIGHTLY E.J., GRANDI G., GUISEPI G.,
RA GUY B.J., HAGA K., HAIECH J., HARWOOD C.R., HENAUT A., HILBERT H.,
RA HOLZAPPEL S., HOSONO S., HULLO M.F., ITAYA N., JONES L., JORIS B.,
RA KARAWA D., KASHARA Y., KLAER-BLANCHARD M., KLEIN C., KOBYASHI Y.,
RA KOETTER P., KONIGSTEIN G., KROGH S., KURANO M., KURITA K., LAPIDUS A.,
RA LARDINOIS S., LAUBER J., LAZAREVIC V., LEE S.M., LEVINE A., LIU H.,
RA MASUDA S., MAGEL C., MEDIGUE C., MEDINA N., MELLAO R.P., MIZUNO M.,
RA MOESTL D., NAKAI S., NOBACK M., NOONE D., O'REILLY M., OGAWA K.,
RA OGIMURA A., OUDEGA B., PARK S.H., PARRO V., POHL T.M., PORTERELLE D.,
RA POROMOLIK S., PRESCOTT A.M., PRESECAN E., PUTIC P., PURNELLE B.,
RA RAPPOPORT G., REY M., REYNOLDS S., RIGSER M., RIVOLTA C., ROCHA E.,
RA ROCHE B., ROSE M., SADALE Y., SATO T., SCANLAN E., SCHLEICH S.,
RA SCHROETER R., SCOFFONE F., SERIGUCHI J., SEKOWSKA A., SEKOR S.J.,
RA SERRO P., SHIN B.S., SOLDO B., SOROKIN A., TACCONI E., TAKAGI T.,
RA TAKAHASHI H., TAKEKAWA K., TAKEUCHI M., TAKAKOSHI A., TANAKA T.,
RA TERPSTRA P., TOGNONI A., TOSATO V., UCHIYAMA S., VANDENBOL M.,
RA VANNIER F., VASSAROTTI A., VIARI A., WAMBUTT R., WEDDER E., WEDDER H.,
RA WEITZENEGGER T., WINTERS P., WIPAT A., YAMAMOTO H., YAMANE K.,
RA YASUNOHO K., YATA K., YOSHIDA K., YOSHIKAWA H.F., ZUMSTEIN E.,
RA YOSHIKAWA H., DANCHIN A.;
RT "The complete genome sequence of the gram-positive bacterium *Bacillus*
RT subtilis".
RL NATURE 390:249-256(1997).
RN [2]
RP SEQUENCE FROM N.A.
RC STRAIN-168;
RX KUNST F., OGASAWARA N., YOSHIKAWA H., DANCHIN A.;
DE SUBMITTED (NOV-1997) TO EMBL/GENBANK/DDJ DATA BANKS.
RN [3]
SO SEQUENCE FROM N.A.

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RX MEDLINE: 97101647.
RA YAMAMOTO H., UCHIYAMA S., SEKIGUCHI J.;
RT "Cloning and sequencing of a 27.8-kb nucleotide sequence of the 79
RT degrees-81 degrees region of the Bacillus subtilis genome containing
RT the spe locus."
RL DNA RES. 3:257-262(1996).
DR EMBL: 299108; E1182829; -.
DR EMBL: D85082; D1025376; -.
SQ SEQUENCE 178 AA; 20666 MW; AAB036C7 CRC32;

Query Match
Best Local Similarity 66.7%; Score 45; DB 2; Length 178;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 24 KKWQIO 29
1:1:1:1
QY 1 KKWQVO 6

RESULT 24
ID 017645 PRELIMINARY; PRT; 383 AA.
AC 017645;
DT 01-JAN-1998 (TREMBLERL. 05, CREATED)
DT 01-JAN-1998 (TREMBLERL. 05, LAST SEQUENCE UPDATE)
DE 01-NOV-1998 (TREMBLERL. 08, LAST ANNOTATION UPDATE)
DE C3AF6.4.
OS CAENORHABDITIS ELEGANS.
OC EUKARYOTA; METAZOA; NEMATODA; SECERNENTEA; RHABDITIA; RHABDITIDA;
OC RHABDITINA; RHABDITOIDEA; RHABDITIDAE; PELODERINAE; CAENORHABDITIS.
RN [1]
RP SEQUENCE FROM N.A.
RA WHITE S.;
RL SUBMITTED (JAN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.

RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 94150718.
RA WILSON R., AINSCOUGH R., ANDERSON K., BAYNES C., BERKS M., BONFIELD J.,
RA BURTON J., CONNELL M., COPSEY T., COOPER J., COULSON A., CRAXTON M.,
RA DEAR S., DU Z., DURBIN R., FAVELLO A., FULTON L., GARDNER A., GREEN P.,
RA HARKINS T., HILLIER L., JIER M., JOHNSTON L., JONES M., KERSHAW J.,
RA KIRSTEN J., LAISTER N., LATREILLE P., LIGHTNING J., LLOYD C.,
RA MCURRAY A., MORTIMORE B., O'CALLAGHAN M., PARSONS J., PERCY C.,
RA RIFEEN L., ROOPRA A., SAUNDERS D., SHOWNKEEN R., SMALDON N., SMITH A.,
RA SONNHAMMER E., STADEN R., SULSTON J., THIERRY-MIEG J., THOMAS K.,
RA VAIDIN M., VAUGHAN K., WATERSTON R., WATSON A., WEINSTOCK L.,
RA WILKINSON-SPROAT J., WOHLDMAN P.;
RT "2.2 Mb of contiguous nucleotide sequence from chromosome III of C.
RT elegans."
RL NATURE 368:32-38(1994).
DR EMBL: Z81479; E1186781; -.
SQ SEQUENCE 383 AA; 45051 MW; CA413BD9 CRC32;

Query Match
Best Local Similarity 66.7%; Score 45; DB 5; Length 383;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 178 KKWQIO 183
1:1:1:1
QY 1 KKWQVO 6

RESULT 25
ID 060646 PRELIMINARY; PRT; 475 AA.
AC 060646;
DT 01-AUG-1998 (TREMBLERL. 07, CREATED)
DT 01-AUG-1998 (TREMBLERL. 07, LAST SEQUENCE UPDATE)
DE 01-NOV-1998 (TREMBLERL. 08, LAST ANNOTATION UPDATE)
DE HYPOTHETICAL 53.8 KD PROTEIN (FRAGMENT).
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.

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RC TISSUE-BRAIN;
RX MEDLINE: 96207227.
RA ANDERSSON B., WENTLAND M.A., RICAFFRENTE J.Y., LIU W., GIBBS R.A.;
RT "A "double adaptor" method for improved shotgun library
RT construction."
RL ANAL. BIOCHEM. 236:107-113(1996).
RN [2]
RP SEQUENCE FROM N.A.
RC TISSUE-BRAIN;
RX MEDLINE: 97264341.
RA YU W., ANDERSSON B., MORLEY R.C., MUZNY D.M., DING Y., LIU W.,
RA RICAFFRENTE J.Y., WENTLAND M.A., LENNON G., GIBBS R.A.;
RT "Large-scale concatenation cDNA sequencing."
RL GENOME RES. 7:353-358(1997).
RN [3]
RP SEQUENCE FROM N.A.
RC TISSUE-BRAIN;
RA YU W., GIBBS R.A.;
RL SUBMITTED (MAR-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: AF055010; G3005733; -.
KM HYPOTHETICAL PROTEIN.
FT NON_TER 1
SQ SEQUENCE 475 AA; 53799 MW; 214CB079 CRC32;

Query Match
Best Local Similarity 66.7%; Score 45; DB 4; Length 475;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 314 KEKWE 319
1:1:1:1
QY 1 KKWQVO 6

RESULT 26
ID 023206 PRELIMINARY; PRT; 483 AA.
AC 023206;
DT 01-NOV-1996 (TREMBLERL. 01, CREATED)
DT 01-NOV-1996 (TREMBLERL. 01, LAST SEQUENCE UPDATE)
DE 01-AUG-1998 (TREMBLERL. 07, LAST ANNOTATION UPDATE)
DE SIMILARITY TO NUCLEOLUS-CYTOPLASM SHUTTLE PHOSPHOPROTEIN.
GN W06E11.1.
OS CAENORHABDITIS ELEGANS.
OC EUKARYOTA; METAZOA; NEMATODA; SECERNENTEA; RHABDITIA; RHABDITIDA;
OC RHABDITINA; RHABDITOIDEA; RHABDITIDAE; PELODERINAE; CAENORHABDITIS.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-BRISTOL N2;
RA WILSON R., AINSCOUGH R., ANDERSON K., BAYNES C., BERKS M., BONFIELD J.,
RA BURTON J., CONNELL M., COPSEY T., COOPER J., COULSON A., CRAXTON M.,
RA DEAR S., DU Z., DURBIN R., FAVELLO A., FULTON L., GARDNER A., GREEN P.,
RA HARKINS T., HILLIER L., JIER M., JOHNSTON L., JONES M., KERSHAW J.,
RA KIRSTEN J., LAISTER N., LATREILLE P., LIGHTNING J., LLOYD C.,
RA MCURRAY A., MORTIMORE B., O'CALLAGHAN M., PARSONS J., PERCY C.,
RA RIFEEN L., ROOPRA A., SAUNDERS D., SHOWNKEEN R., SMALDON N., SMITH A.,
RA SONNHAMMER E., STADEN R., SULSTON J., THIERRY-MIEG J., THOMAS K.,
RA VAIDIN M., VAUGHAN K., WATERSTON R., WATSON A., WEINSTOCK L.,
RA WILKINSON-SPROAT J., WOHLDMAN P.;
RL NATURE 0:0-0(0).
RN [2]
RP SEQUENCE FROM N.A.
RC STRAIN-BRISTOL N2;
RA FULTON L.;
RL SUBMITTED (MAR-1995) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [3]
RP SEQUENCE FROM N.A.
RC STRAIN-BRISTOL N2;
RA WATSON R.;
RL SUBMITTED (FEB-1995) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: U20862; G669020; -.
SQ SEQUENCE 483 AA; 55009 MW; 6C9BB6E6 CRC32;

Query Match
Best Local Similarity 83.3%; Score 45; DB 5; Length 483;

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Matches 5; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 458 KAKWVO 463
1 1111
QY 1 KOKWVO 6

RESULT 27
ID 062146 PRELIMINARY; PRT: 593 AA.
AC 062146;
DT 01-AUG-1998 (TREMBLREL. 07, CREATED)
DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE F09B12.3.
OS CAENORABDITIS ELEGANS.
OC EUDAROTOTA; METAZOA; NEMATODA; SECERNENTEA; RHABDITIA; RHABDITIDA;
RN RHABDITIDA; RHABDITIDEA; RHABDITIDAE; PELODERINAE; CAENORHABDITIS.
RN [1]
RP SEQUENCE FROM N.A.
RL LLOYD C.;
RL SUBMITTED (JUN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 94150718.
RA WILSON R., AINSOUGH R., ANDERSON K., BAYNES C., BERKS M., BONFIELD J.,
RA BURTON J., CONNELL M., COOPER T., COOPER J., COULSON A., CRAXTON M.,
RA DEAR S., DU Z., DURBIN R., FAVELLO A., FULTON L., GARDNER A., GREEN P.,
RA HAKINS T., HILLER L., JIER M., JOHNSTON L., JONES M., KERSHAW J.,
RA KISTEN J., LAISTER N., LATREILLE P., LIGHTING J., LLOYD C.,
RA MCURRAY A., MORTIMORE B., O'CALLAGHAN M., PARSONS J., PERCY C.,
RA RIKKEN L., ROOPER A., SAUNDERS D., SHOWNKEEN R., SMALDON N., SMITH A.,
RA VAUDIN M., VAUGHAN K., SULSTON J., THIERRY-MIEG J., THOMAS K.,
RA WILKINSON-SPROAT J., WOHLDMAN P.;
RA "2.2 Mb of contiguous nucleotide sequence from chromosome III of C.
RT elegans.";
RT NATURE 368:32-38(1994).
RL EMBL: 283104; E1297723; -.
SO SEQUENCE 593 AA; 68139 MW; 7AE2795D CRC32;

Query Match 84.9%; Score 45; DB 5; Length 593;
Best Local Similarity 66.7%; Pred. No. 1.83e+02;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 156 NOKWIO 161
1 1111
QY 1 KOKWVO 6

RESULT 28
ID 023532 PRELIMINARY; PRT: 1038 AA.
AC 023532;
DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE RESISTANCE GENE.
OS ARABIDOPSIS THALIANA (MOUSE-EAR CRESS).
OC EUDAROTOTA; VIRIDIPLANTAE; CHAROPHYTA/EMBRYOPHYTA GROUP; EMBRYOPHYTA;
RN TRACHEOPHYTA; EUPHYLOPHYTES; SPERMATOPHYTES; MAGNOLIOPHYTA;
OC EUDICOTYLEDONS; ROSIDAE; CAPRALES; BRASSICACEAE; ARABIDOPSIS.
RN [1]
RP SEQUENCE FROM N.A.
RA BEVAN M., STIEKEMA W., MURPHY G., WAMBUTT R., POHL T., TERRY N.,
RA KREIS M., KAVANAGH T., ENLIAN K.D., RIEGER M., JAMES R.,
RA PUTJDOMENICH P., HATZIOPOULOS P., OBERMAIER B., DUESTERHOFF A.,
RA JONES J., PALME K., ANSORGE W., DELSENY M., BANCROFT I., MENES H.W.,
RA SCHUELLER C., CHALMUTZIS N.;
RA SUBMITTED (JUL-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]
RP SEQUENCE FROM N.A.
RL EU ARABIDOPSIS SEQUENCING PROJECT, ESSA;
RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: 297342; E327023; -.

DR PFAM: PF00560; LRR: 4.
DR PFAM: PF00931; NB-ARC: 1.
SQ SEQUENCE 1038 AA; 117379 MW; 142121DD CRC32;

Query Match 84.9%; Score 45; DB 10; Length 1038;
Best Local Similarity 66.7%; Pred. No. 1.83e+02;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 135 KORMWO 140
1 1111
QY 1 KOKWVO 6

RESULT 29
ID 075050 PRELIMINARY; PRT: 2276 AA.
AC 075050;
DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE KIA0462 PROTEIN (FRAGMENT).
GN KIA0462.
OS HOMO SAPIENS (HUMAN).
OC EUDAROTOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
RN PRIMATES; CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-BRAIN;
RX MEDLINE: 98116662.
RA SEKI N., OHIRA M., NAGASE T., ISHIKAWA K., MIYAJIMA N., NAKAJIMA D.,
RA NODURA N., OHARA O.;
RA "Characterization of cDNA clones in size-fractionated cDNA libraries
RT from human brain.";
RL DNA RES. 4:345-349(1997).
DR EMBL: AB007931; D1033269; -.
FT NON-TER 1
SQ SEQUENCE 2276 AA; 255392 MW; BB547F85 CRC32;

Query Match 84.9%; Score 45; DB 4; Length 2276;
Best Local Similarity 66.7%; Pred. No. 1.83e+02;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 2115 KEXWVE 2120
1 1111
QY 1 KOKWVO 6

RESULT 30
ID 003005 PRELIMINARY; PRT: 141 AA.
AC 003005;
DT 01-JUL-1997 (TREMBLREL. 04, CREATED)
DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
DT 01-JUL-1997 (TREMBLREL. 04, LAST ANNOTATION UPDATE)
DE ORF2280 GENE HOMOLOG (FRAGMENT).
OS GRAYIA SPINOSA.
OC CHLOROPLAST.
OC EUDAROTOTA; VIRIDIPLANTAE; CHAROPHYTA/EMBRYOPHYTA GROUP; EMBRYOPHYTA;
RN TRACHEOPHYTA; EUPHYLOPHYTES; SPERMATOPHYTES; MAGNOLIOPHYTA;
OC EUDICOTYLEDONS; CAROPHYLLIDAE; CAROPHYLLALES; CHENOPODIACEAE;
OC GRUYIA.
RN [1]
RP SEQUENCE FROM N.A.
RA DOWNIE S.R., KATZ-DOWNIE D.S., CHO K.J.;
RL AM. J. BOT. 84:253-273(1997).
DR EMBL: U48553; E309444; -.
KW CHLOROPLAST.
FT NON-TER 1
FT NON-TER 1
SQ SEQUENCE 141 AA; 17259 MW; B1AFC00 CRC32;

Query Match 83.0%; Score 44; DB 8; Length 141;
Best Local Similarity 66.7%; Pred. No. 2.62e+02;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

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US-08-927-939-9.rspt

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Db 55 ROKWR 60
:|l|:
QY 1 KQKWO 6

Search completed: Thu Apr 1 07:32:07 1999
Job time : 33 secs.

92	77	76.2	72.23	W25705	Mutant human IL-8, R4	5.15e-01
93	77	76.2	73.13	R70252	Eotaxin chemoattracta	5.15e-01
94	77	76.2	96.24	W14991	Guinea pig eosinocyte	5.15e-01
95	75	74.3	72.21	W11132	Human interleukin-8 u	8.34e-01
96	75	74.3	72.23	W12435	Chimeric interleukin-	8.34e-01
97	75	74.3	72.13	R70804	Chemoattractant MCP-2	8.34e-01
98	75	74.3	109.29	W26072	Human MC propeptide	8.34e-01
99	75	74.3	109.26	W26655	Human beta-chemokine	8.34e-01
100	74	73.3	395.26	W23347	Novel murine CX3C	1.06e+00

ALIGNMENTS

RESULT 1
ID R06398 standard; protein; 99 AA.
AC R06398;
DE 14-DEC-1990 (first entry)
DT Human MCF precursor.
KW Monocyte chemotactic factor; antibacterial; antitumour; cancer.
OS Homo sapiens.
FH Key Location/Qualifiers
FT protein 24..99
FT /label=ature MCP
FT /note="Claim 1"
TI misc_difference 76
TI /label=A or T
.. W09007863-A.
PN 26-JUL-1990.
PD 02-JAN-1990; U00004.
PE 01-JAN-1989; JP-000065.
PR 03-FEB-1989; JP-026438.
PA (USDC) US SEC OF COMMERCE.
PI Furutani Y, Fukui T, Junichi Y, Masaki Y, Matsushima K;
PI Openheim J;
DR WPI: 90-253802/33.
PT Human monocyte chemotactic factor type polypeptide and DNA
PT encoding it - useful as antibacterial and antitumour agents.
PS Claim 2; Page 25; 27pp; English.
CC The sequence was deduced from the DNA sequence determined from
CC three recombinant plasmids, PHMCF7, PHMCF23 and PHMCF29 which
CC were isolated from a cDNA library prepd. from RNA extracted from
CC human promyelocytic leukaemia cell line, HL-60 (ATCC CCR-240).
CC vectors. In plasmids PHMCF7 and PHMCF29 bases 105 and 226 were
CC T and G resp. in PHMCF23 they were C and A resp. The AA at posn.
CC 76 of the precursor protein is therefore not determined and may be
CC either Ala or Thr. The protein may be produced by recombinant
CC DNA techniques in E.coli, and is useful as a drug for treatment of
CC certain bacterial infections and cancers.
SQ Sequence 99 AA;
Query Match 92.1%; Score 93; DB 2; Length 99;
Best Local Similarity 91.7%; Pred. No. 1.00e-02;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
Db 73 eicxdkpkxwq 84
Oy 1 EICDPKOKWQ 12
RESULT 2
ID W13598 standard; peptide; 66 AA.
AC W13598;
DE 07-NOV-1997 (first entry)
DT Monocyte chemoattractant protein analogue MCP-1 (10-76).
KW Truncated monocyte chemoattractant protein-1; inhibitor;
KW receptor binding; anti inflammatory; basophil; lymphocyte;
KW chronic inflammatory disease; arthritis; arteriosclerosis;
KW lung disease.
OS Homo sapiens.
PN CA2152141-A.
PD 20-DEC-1996.
PE 19-JUN-1995; CA-152141.
PR (LEWIS) LEWIS I.
PI Gong J, Lewis I;
DR WPI: 97-165844/16.
PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
PT anti-inflammatory agent
PS Disclosure; Page 5; 27pp; English.
CC The present sequence represents an analogue, MCP-1 (10-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-9 of MCP-1, acts as an antagonist of MCP-1
CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory agent causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammation sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC providing 50% inhibition of binding at a 25:1 ratio or less, compared
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 67 AA;
Query Match 89.1%; Score 90; DB 24; Length 67;
Best Local Similarity 91.7%; Pred. No. 2.12e-02;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
Db 40 eicadpkpkxwq 51
Oy 1 EICDPKOKWQ 12

PR 19-JUN-1995; CA-152141.
PA (LEWIS) LEWIS I.
PI Gong J, Lewis I;
DR WPI: 97-165844/16.
PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
PT lacks MCP-1 activity and inhibits receptor binding, useful as
PT anti-inflammatory agent
PS Disclosure; Page 5; 27pp; English.
CC The present sequence represents an analogue, MCP-1 (10-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-9 of MCP-1, acts as an antagonist of MCP-1
CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammation sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC providing 50% inhibition of binding at a 25:1 ratio or less, compared
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 66 AA;
Query Match 89.1%; Score 90; DB 24; Length 66;
Best Local Similarity 91.7%; Pred. No. 2.12e-02;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
Db 40 eicadpkpkxwq 51
Oy 1 EICDPKOKWQ 12

RESULT 3
ID W13599 standard; peptide; 67 AA.
AC W13599;
DE 07-NOV-1997 (first entry)
DT Monocyte chemoattractant protein analogue MCP-1 (11-76).
KW Truncated monocyte chemoattractant protein-1; inhibitor;
KW receptor binding; anti inflammatory; basophil; lymphocyte; allergy;
KW chronic inflammatory disease; arthritis; arteriosclerosis;
KW lung disease.
OS Homo sapiens.
PN CA2152141-A.
PD 20-DEC-1996.
PE 19-JUN-1995; 152141.
PR 19-JUN-1995; CA-152141.
PA (LEWIS) LEWIS I.
PI Gong J, Lewis I;
DR WPI: 97-165844/16.
PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
PT lacks MCP-1 activity and inhibits receptor binding, useful as
PT anti-inflammatory agent
PS Disclosure; Page 5; 27pp; English.
CC The present sequence represents an analogue, MCP-1 (11-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-10 of MCP-1, acts as an antagonist of MCP-1
CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory agent causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammation sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC providing 50% inhibition of binding at a 25:1 ratio or less, compared
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 67 AA;
Query Match 89.1%; Score 90; DB 24; Length 67;
Best Local Similarity 91.7%; Pred. No. 2.12e-02;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
Db 41 eicadpkpkxwq 52

|||||
OY 1 EICLDPKOKRWQ 12

RESULT 4
ID W13597 standard; peptide; 68 AA.
AC W13597; (first entry)
DT 07-NOV-1997 (first entry)
DE Monocyte chemoattractant protein analogue MCP-1 (9-76).
KW truncated monocyte chemoattractant protein-1; inhibitor;
KW receptor binding; anti inflammatory; basophil; lymphocyte; allergy;
KW chronic inflammatory disease; arthritis; arteriosclerosis;
KW lung disease.
OS Homo sapiens.
PN CA2152141-A.
PD 20-DEC-1996.
PF 19-JUN-1995; 152141.
PR 19-JUN-1995; CA-152141.
PA (LEWIS) LEWIS I.
PI Gong J, Lewis I.
PI WPI; 97-155844/16.
PI N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
PI lacks MCP-1 activity and inhibits receptor binding, useful as
PI anti-inflammatory agent
PS Claim 7; Page 5; 27pp; English.
CC The present sequence represents an analogue, MCP-1 (9-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-8 of MCP-1, acts as an antagonist of MCP-1
CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammation sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC providing 50% inhibition of binding at a 25:1 ratio or less, compared
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 68 AA;

Query Match 89.1%; Score 90; DB 24; Length 68;
Best Local Similarity 91.7%; Pred. No. 2,12e-02;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

DB 42 eicadpdkqkwg 53
OY 1 EICLDPKOKRWQ 12

RESULT 5
ID R87678 standard; protein; 69 AA.
AC R87678;
DT 21-FEB-1996 (first entry)
DE des(2-8) MCP-1.
KW monocyte chemoattractant protein; MCP-1; mutant; restenosis;
KW angioplasty.
OS Homo sapiens.
PI Key
PI modified_site
PI 2.3
PI Location/Qualifiers
FT /note="amino acids 2-8 of the native protein have
FT been deleted between these residues"
FT 4..29
FT disulfide_bond 5..45
FT W09513295-A1.
PD 18-MAY-1995.
PR 07-NOV-1994; U12874.
PR 12-NOV-1993; US-152301.
PA (DAND) DANA FARBER CANCER INST INC.
PI Rollins B, Zhang YJ;
PI WPI; 95-215051/28.
PI Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are
PI capable of inhibiting the monocyte chemo-attractant activity of
PI endogenous MCP-1 and can be used to treat restenosis

PS Claim 4; Page 11; 22pp; English.
CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
CC that they inhibit the monocyte chemoattractant activity of endogenous
CC MCP-1, provided that the derivative has not been modified by the
CC substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
CC are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg
CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
CC acids 2-8. The present sequence is a specifically claimed human MCP-1
CC derivative based on the parent protein disclosed in Rollins, Molecular
CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
CC The peptides can be used to prevent restenosis, e.g. in patients
CC undergoing coronary artery angioplasty.
SQ Sequence 69 AA;

Query Match 89.1%; Score 90; DB 14; Length 69;
Best Local Similarity 91.7%; Pred. No. 2,12e-02;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

DB 43 eicadpdkqkwg 54
OY 1 EICLDPKOKRWQ 12

RESULT 6
ID W13596 standard; peptide; 69 AA.
AC W13596;
DT 07-NOV-1997 (first entry)
DE Monocyte chemoattractant protein analogue MCP-1 (8-76).
KW truncated monocyte chemoattractant protein-1; inhibitor;
KW receptor binding; anti inflammatory; basophil; lymphocyte; allergy;
KW chronic inflammatory disease; arthritis; arteriosclerosis;
KW lung disease.
OS Homo sapiens.
PN CA2152141-A.
PD 20-DEC-1996.
PF 19-JUN-1995; 152141.
PR 19-JUN-1995; CA-152141.
PA (LEWIS) LEWIS I.
PI Gong J, Lewis I.
PI WPI; 97-155844/16.
PI N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
PI lacks MCP-1 activity and inhibits receptor binding, useful as
PI anti-inflammatory agent
PS Claim 5; Page 5; 27pp; English.
CC The present sequence represents an analogue, MCP-1 (8-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-7 of MCP-1, acts as an antagonist of MCP-1
CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammation sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC providing 50% inhibition of binding at a 25:1 ratio or less, compared
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 69 AA;

Query Match 89.1%; Score 90; DB 24; Length 69;
Best Local Similarity 91.7%; Pred. No. 2,12e-02;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

DB 43 eicadpdkqkwg 54
OY 1 EICLDPKOKRWQ 12

RESULT 7
ID W09374 standard; Protein; 76 AA.
AC W09374;
DT 21-MAR-1997 (first entry)
DE Monocyte chemotactic protein 1.

KW Human: monocyte chemoattractant protein; antisense: inhibition;
KM mononuclear cell; lymphocyte; macrophage; smooth muscle cell;
KW vascular restenosis.
OS Homo sapiens.
FH Key Location/Qualifiers
FT misc_difference 1
FT misc_difference 51 /note= "encoded by codon CAG"
FT misc_difference 65 /note= "encoded by codon AUG"
FT misc_difference 65 /note= "encoded by codon CAC"
PN US5571713-A.
PD 05-NOV-1996.
PE 22-OCT-1992: 965678.
PR 22-OCT-1992: US-965678.
PR 27-MAY-1994: US-250958.
PA (UNMI) UNIV MICHIGAN.
PI Kunkel SL, Lyle LR, Strieter RM;
DR WPI: 96-505405/50.
DR N-PSDB: T48092.
PT Anti-sense Monocyte Chemoattractant Protein-1 oligo:nucleotide(s) -
PT useful for therapy or diagnosis of restenosis, etc.
PS Disclosure: Column 13-14; 16pp: English.
CC This is the amino acid sequence of the human monocyte chemoattractant
CC protein (MCP)-1, a member of the C-C chemokine family. MCP-1 is a potent
CC stimulator of monocyte chemotaxis and is produced by injured vascular
CC smooth cells thus attracting monocytes and macrophages which infiltrate
CC the injured area and release growth factor. This causes proliferation of
CC the vascular smooth cells resulting in restenosis. The gene sequence can
CC be used to generate antisense sequences e.g. T48093-7, which can be used
CC to inhibit in vitro MCP-1 prodn. by mononuclear cells e.g. lymphocytes or
CC macrophages, or smooth muscle cells, esp. in order to prevent vascular
CC restenosis.
SQ Sequence 76 AA:
Query Match 89.1%; Score 90; DB 20; Length 76;
Best Local Similarity 91.7%; Pred. No. 2.12e-02;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
Db 50 eicadpkqkxwq 61
||| |||||||
QY 1 EICDPRKQKRWQ 12
RESULT 8
ID P90292 standard; peptide: 76 AA.
AC P90292.
DE 17-JAN-1990 (first entry)
DT Peptide from human glioma cell line U-105MG.
KW Glioma; leucocyte; chemotaxis; neoplasms.
OS Human.
FH Key Location/Qualifiers
FT modified_site 1
FT modified_site 1 /label= OTHER
FT /note= "pyroglutamic acid"
PN US7304234-A.
PD 20-JUL-1989.
PE 31-JAN-1989: 030423.
PR 31-JAN-1989: US-304234.
PA (USSH) US Dept. of Health and Human.
PI Yoshimura T; Robinson E; Appella E; Leonard E.
DR WPI: 89-263501/36.
PT New peptide with specific chemotactic activity for monocytes - isolated
PT from glioma or leucocyte cells, useful for treating infections and
PI neoplasms.
PS Disclosure: page 3; 46pp; English.
CC Peptide is derived from glioma cell line U-105MG (ATCC CRL9932) or from
CC leukocytes and has mol. wt. 8400. Used to treat infections and neoplasms.
SQ Sequence 76 AA:
Query Match 89.1%; Score 90; DB 1; Length 76;
Best Local Similarity 91.7%; Pred. No. 2.12e-02;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 50 eicadpkqkxwq 61
||| |||||||
QY 1 EICDPRKQKRWQ 12
RESULT 9
ID R87675 standard; protein: 76 AA.
AC R87675;
DT 21-FEB-1996 (first entry)
DE (28-ASP) MCP-1.
KW monocyte chemoattractant protein; MCP-1; mutant; restenosis;
KW angioplasty.
OS Homo sapiens.
FH Key Location/Qualifiers
FT modified_site 28
FT modified_site 28 /note= "Tyr in the native sequence is replaced by Asp"
FT disulfide_bond 11..36
FT disulfide_bond 12..52
PN W09513295-A1.
PD 18-MAY-1995.
PE 07-NOV-1994: U12874.
PR 12-NOV-1993: US-152301.
PA (DAND) DANA FARBER CANCER INST INC.
PI Rollins B, Zhang YJ;
DR WPI: 95-215051/28.
PT Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are
PT capable of inhibiting the monocyte chemo-attractant activity of
PT endogenous MCP-1 and can be used to treat restenosis
PS Claim 3; Page 11; 22pp: English.
CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
CC that they inhibit the monocyte chemoattractant activity of endogenous
CC MCP-1, provided that the derivative has not been modified by the
CC substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
CC are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg
CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
CC acids 2-8. The present sequence is a specifically claimed human MCP-1
CC derivative based on the parent protein disclosed in Rollins, Molecular
CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
CC The peptides can be used to prevent restenosis, e.g. in patients
CC undergoing coronary artery angioplasty.
SQ Sequence 76 AA:
Query Match 89.1%; Score 90; DB 14; Length 76;
Best Local Similarity 91.7%; Pred. No. 2.12e-02;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
Db 50 eicadpkqkxwq 61
||| |||||||
QY 1 EICDPRKQKRWQ 12
RESULT 10
ID R53398 standard; Protein: 76 AA.
AC R53398;
DT 15-DEC-1994 (first entry)
DE Sense MCP-1.
KW Antisense; RNA; DNA; monocyte chemotactic protein-1; MCP-1;
KW radionuclide; vascular restenosis; alpha; beta; emitting isotope;
KW diagnosis; monocytes; vascular injury.
OS Mammalian.
FH Key Location/Qualifiers
FT misc_difference 1
FT misc_difference 1 /note= "Unspecified amino acid"
PN W09409128-A.
PD 28-APR-1994.
PE 20-OCT-1993: U10074.
PR 22-OCT-1992: US-965678.
PA (MNCW) MALLINCKRODT MEDICAL INC.
PI Lyle LR;
DR WPI: 94-151314/18.
PT Anti-sense monocyte chemoattractant protein-1 oligo:nucleotide(s) and
PT peptide(s) - is used for inhibiting, treating or imaging areas of

PT vascular restenosis or potential restenosis
PS Disclosure: Page 5; 42pp; English.
CC The sequences given in R53398-99 represent sense and antisense
CC monocytic chemotactic protein-1 (MCP-1) respectively. These
CC oligonucleotides may be labelled with a radionuclide and use
CC therapeutically for the treatment of vascular restenosis.
CC Radiolabelled antisense MCP-1 compounds may be constructed using high
CC energy alpha or beta emitting isotopes rather than the gamma
CC emitters customarily used for diagnostic purposes. Antisense MCP-1
CC compounds inactivate MCP-1 or inhibit production of MCP-1 so that
CC monocytes are not attracted to the area of vascular injury and
CC proliferation of vascular cells is inhibited.
SQ Sequence 76 AA:
Query Match 89.1%; Score 90; DB 10; Length 76;
Best Local Similarity 91.7%; Pred. No. 2.12e-02;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
Db 50 elcadpkkxwq 61
||| |||||
QY 1 EICDPRKQKWQ 12
RESULT 11
AC R87676 standard; protein; 76 AA.
DE 21-FEB-1996 (first entry)
DE (24-Arg) MCP-1.
KM monocytic chemoattractant protein; MCP-1; mutant; restenosis;
KW angioplasty.
OS Homo sapiens.
FH Key Location/Qualifiers
FT modified_site 24
FT /note= "Arg in the native sequence is replaced by Phe"
FT disulfide_bond 11..36
FT disulfide_bond 12..52
PN W09513295-A1.
PD 18-MAY-1995.
PF 07-NOV-1994; U12874.
PR 12-NOV-1993; US-152301.
PA (DAND) DANA FARBER CANCER INST INC.
PI Rollins B, Zhang YJ;
DR WPI: 95-215051/28.
PT Human monocytic chemo-attractant protein-1 (MCP-1) derivs. - are
PT capable of inhibiting the monocytic chemo-attractant activity of
PT endogenous MCP-1 and can be used to treat restenosis
PS Claim 5; Page 11; 22pp; English.
CC Monocytic chemoattractant protein-1 (MCP-1) derivatives are mutated such
CC that they inhibit the monocytic chemoattractant activity of endogenous
CC MCP-1, provided that the derivative has not been modified by the
CC substitution of 28-tyr by leu and/or 30-Arg by Val. Preferred mutations
CC are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg
CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
CC acids 2-8. The present sequence is a specifically claimed human MCP-1
CC derivative based on the parent protein disclosed in Rollins, Molecular
CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
CC The peptides can be used to prevent restenosis, e.g. in patients
CC undergoing coronary artery angioplasty.
SQ Sequence 76 AA:
Query Match 89.1%; Score 90; DB 14; Length 76;
Best Local Similarity 91.7%; Pred. No. 2.12e-02;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
Db 50 elcadpkkxwq 61
||| |||||
QY 1 EICDPRKQKWQ 12
RESULT 12
ID R28660 standard; Protein; 76 AA.
AC R28660;
DT 24-MAR-1993 (first entry)

DE MCF.
KM Plasmid; monocytic chemotactic factor; MCF; translation;
KM termination; terminator; initiation; ribosome binding site;
KW RBS; promoter; tryptophan; repressor.
OS Synthetic.
PN W09219737-A.
PD 12-NOV-1992.
PF 27-APR-1992; J00550.
PR 09-MAY-1991; JP-135950.
PA (DAIN) DAINIPPON PHARM CO LTD.
PI Fukui T, Matsuo N, Yamada M, Yamagishi J;
DR WPI: 92-398864/48.
DR N-PSDB: Q30745-46.
FT Prodn. of polypeptide(s) having monocytic chemotactic activity -
FT using expression plasmids with E. coli elements and specific
PT E. coli strains
PS Claim 1; Page 48 + Page 36; 56pp; English.
CC An expression plasmid, pHM483, for producing MCF(76) consisting
CC of 76 amino acids was constructed. The prod. can be used for e.g.
CC treating bacterial infectious diseases.
SQ Sequence 76 AA:
Query Match 89.1%; Score 90; DB 5; Length 76;
Best Local Similarity 91.7%; Pred. No. 2.12e-02;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
Db 50 elcadpkkxwq 61
||| |||||
QY 1 EICDPRKQKWQ 12
RESULT 13
ID R87677 standard; protein; 76 AA.
AC R87677;
DE 21-FEB-1996 (first entry)
DE (3-Ala) MCP-1.
KM monocytic chemoattractant protein; MCP-1; mutant; restenosis;
KW angioplasty.
OS Homo sapiens.
FH Key Location/Qualifiers
FT modified_site 3
FT /note= "Asp in the native sequence is replaced by Ala"
FT disulfide_bond 11..36
FT disulfide_bond 12..52
PN W09513295-A1.
PD 18-MAY-1995.
PF 07-NOV-1994; U12874.
PR 12-NOV-1993; US-152301.
PA (DAND) DANA FARBER CANCER INST INC.
PI Rollins B, Zhang YJ;
DR WPI: 95-215051/28.
PT Human monocytic chemo-attractant protein-1 (MCP-1) derivs. - are
PT capable of inhibiting the monocytic chemo-attractant activity of
PT endogenous MCP-1 and can be used to treat restenosis
PS Claim 6; Page 11; 22pp; English.
CC Monocytic chemoattractant protein-1 (MCP-1) derivatives are mutated such
CC that they inhibit the monocytic chemoattractant activity of endogenous
CC MCP-1, provided that the derivative has not been modified by the
CC substitution of 28-tyr by leu and/or 30-Arg by Val. Preferred mutations
CC are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg
CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
CC acids 2-8. The present sequence is a specifically claimed human MCP-1
CC derivative based on the parent protein disclosed in Rollins, Molecular
CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
CC The peptides can be used to prevent restenosis, e.g. in patients
CC undergoing coronary artery angioplasty.
SQ Sequence 76 AA:
Query Match 89.1%; Score 90; DB 14; Length 76;
Best Local Similarity 91.7%; Pred. No. 2.12e-02;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
Db 50 elcadpkkxwq 61

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QY      1 EICLDPKQKRWQ 12

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RESULT  14
ID      R87680 standard; protein; 76 AA.
AC      R87680;
DT      05-MAR-1996 (first entry)
DE      Monocyte chemotactic activating factor for use as wound remedy.
KW      monocyte chemotactic activating factor; MCAF; wound remedy.
OS      Homo sapiens.
PN      WO9507710-A1.
PD      23-MAR-1995.
PE      13-SEP-1994; JP-227385.
PR      (TORA ) TORAY IND INC.
PI      Matsushima K, Naruto M;
DR      WPI; 95-131181/17.
PT      Wound treatment using monocyte chemotactic factor - has potent
PS      therapeutic effect on skin wounds and ulcers
DE      Disclosure; Page 12; 22pp; Japanese.
CC      The invention relates to a new remedy for curing wounds which, instead
CC      of comprising a growth factor, comprises a monocyte chemotactic
CC      activating factor (MCAF) or its variants or derivatives. The factor has
CC      potent effect on skin wounds and ulcers. The present sequence is human
CC      MCAF. The activity of which is exemplified as the new remedy.
SQ      Sequence 76 AA;

Query Match      89.1%; Score 90; DB 15; Length 76;
Best Local Similarity 91.7%; Pred. No. 2.12e-02;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db      50 elcadpkkqkvq 61
      ||| |||||
QY      1 EICLDPKQKRWQ 12

RESULT  15
ID      W11131 standard; protein; 76 AA.
AC      W11131;
DT      10-JUN-1997 (first entry)
DE      Mature human monocyte chemoattractant protein-1 (MCP-1).
KW      MCP-1; mature chemoattractant protein-1; cytokine; interleukin-8;
KW      IL-8; neutrophil activating peptide; labelling; imaging; targeting;
KW      radionuclide; infection; inflammation; neoplasm; atheromatous lesion;
KW      restenosis.
OS      Homo sapiens.
FH      Key
FT      misc_difference 1
FT      Location/Qualifiers
FT      key
PN      US5605671-A.
PD      25-FEB-1997.
PE      05-OCT-1992; 956862.
PR      05-OCT-1992; US-956862.
PR      05-OCT-1992; US-956862.
PR      29-APR-1994; US-235659.
PA      (MCM ) MALLINCKRODT MEDICAL INC.
PA      (UNMI ) UNIV MICHIGAN.
PI      Kunkel SL, Lyte LR, Strieter RM;
DR      WPI; 97-153541/14.
PT      Radio:labelling neutrophil-activating peptide(s) - for imaging
PT      targeted delivery of radioactive agent
PS      Example 10: Column 19-20; 15pp; English.
DE      W11131 represents mature human monocyte chemoattractant protein-1
DE      (MCP-1). MCP-1 was radionuclide labelled and used in a method for
DE      imaging a target site in vivo in an animal. Labelled MCP-1 was allowed
DE      to accumulate at a target site (having MCP-1 receptors) in the animal
DE      and detected so as to image the target site. Any Cys-Cys or Cys-Xaa-Cys
DE      chemokine carrying either iodine-123 or iodine-131 can be used in the
DE      method. Especially preferred is neutrophil activating peptide-2 (NAP-2)
DE      which recognises interleukin-8 receptors and is labelled with
DE      technetium-99m, indium-111, copper-62, rhenium-186 or rhenium-188.
DE      The method can be used for imaging a site of infection, inflammation,

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CC      neoplasm, atheromatous lesion or restenosis.
SQ      Sequence 76 AA;

Query Match      89.1%; Score 90; DB 21; Length 76;
Best Local Similarity 91.7%; Pred. No. 2.12e-02;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db      50 elcadpkkqkvq 61
      ||| |||||
QY      1 EICLDPKQKRWQ 12

RESULT  16
ID      R86859 standard; Protein; 77 AA.
AC      R86859;
DT      20-MAR-1996 (first entry)
DE      Mature MCP-1.
KW      Antisense; monocyte chemotactic protein-1; MCP-1;
KW      "C-C" family; chemoattractant cytokine; chemokine; stimulation;
KW      monocyte; chemotaxis; vascular smooth muscle cell; macrophage;
KW      proliferation; restenosis; balloon angioplasty.
OS      Homo sapiens.
PN      WO9519167-A1.
PD      20-JUL-1995.
PE      13-JAN-1995; U00605.
PR      14-JAN-1994; US-182917.
PA      (MCM ) MALLINCKRODT MEDICAL INC.
PA      Lyte LR, Thomas-Miller B;
DR      WPI; 95-263703/34.
DR      N-PSDB; T03528.
PT      New anti-sense oligo:nucleotide(s) and peptide(s) for inhibiting
PT      restenosis - are directed against C-C family cytokine(s) such as
PT      monocyte chemotactic protein, opt. radio:labelled for therapy or
PT      imaging
PS      Disclosure; Page 5; 50pp; English.
CC      This sequence represents the mature form of monocyte chemotactic
CC      protein-1 (MCP-1). MCP-1 is a member of the "C-C" family of
CC      chemoattractant cytokines or chemokines. It is a potent stimulator
CC      of monocyte chemotaxis and has an extremely high degree of specificity
CC      for this cell type. MCP-1 is produced by injured vascular smooth muscle
CC      cells and attracts the monocytes and macrophages which infiltrate the
CC      area, releasing growth factors and resulting in proliferation of vascular
CC      smooth muscle and restenosis. Nucleic acid molecules which are antisense
CC      to the MCP-1 mRNA may be used to inhibit translation of MCP-1 and so may
CC      be useful for inhibiting vascular restenosis, partic. following balloon
CC      angioplasty or a related process. The molecule may be radiolabelled to
CC      increase its therapeutic effect or for imaging areas of potential
CC      restenosis.
SQ      Sequence 77 AA;

Query Match      89.1%; Score 90; DB 15; Length 77;
Best Local Similarity 91.7%; Pred. No. 2.12e-02;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db      51 elcadpkkqkvq 62
      ||| |||||
QY      1 EICLDPKQKRWQ 12

RESULT  17
ID      R73914 standard; protein; 99 AA.
AC      R73914;
DT      05-DEC-1995 (first entry)
DE      Human monocyte chemoattractant factor hMCP-1.
KW      Human monocyte chemoattractant factor; hMCP-1; chemokine; vaccine;
KW      meningitis related homologous antigenic sequence; MRHS; RV-1;
KW      immunosassay; diagnosis; treatment; prophylactic; bacterial;
KW      viral.
OS      Homo sapiens.
PN      WO9509232-A.
PD      06-APR-1995.
PE      28-SEP-1994; CA0516.
PR      28-SEP-1993; US-127499.

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PA (SHAR) SHARMA L R.
PA (VALS/) VAN ALSTYNE D.
PI Sharma LR, Van Alstyne D;
DR WPI: 95-14743/19.
PI New peptide(s) and corresp. antibodies for the treatment of
PI meningitis - the peptide(s) corresp. to homologous antigenic
PI sites on bacterial and viral agents and on chemokine(s), used for
PI detecting and preventing meningitis
PS Claim 47; Fig 8/10; 98pp; English.
CC R73914 is the chemokine Human monocyte chemoattractant factor hMCP-1.
CC It contains the meningitis related antigenic sequences (MRHAs) claimed
CC in R73895 and R73907, which are recognised by a monoclonal antibody
CC from the hybridoma Rubella virus (RV)1. The claimed MRHAs peptides
CC may be used in immunoassays to diagnose the presence of bacterial
CC and/or viral meningitis agents in a sample, or in prophylactic and
CC therapeutic meningitis treatments. The peptides may also be used as
CC vaccines against meningitis.
CC NB: Identified by matching corresponding MRHAs peptides.
SQ Sequence 99 AA;

Query Match 89.1%; Score 90; DB 14; Length 99;
Best Local Similarity 91.7%; Pred. No. 2.12e-02;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

DB 73 elcadvkqkqvq 84
||| |||||
QY 1 EICLDPKQKQWQ 12

RESULT 18
ID R70800 standard; Protein: 99 AA.

AC R70800: 29-AUG-1995 (first entry)
DE Chemoattractant protein MCP-1.
KW MCP-1; chemoattractant; heparanase; heparin; heparan sulfate;
KW arthritis; restenosis; cancer; wound healing.
OS Homo sapiens.
PN WO9504158-A.
PD 09-FEB-1995.
PF 26-JUL-1994; 008207.
PR 29-JUL-1993; US-099866.
PR 13-OCT-1993; US-136117.
PA (UPJO.) UPJOHN CO.
PI Hoogwerf AJ, Ledbetter SR;
DR WPI: 95-082239/11.
DR N-PSDB: Q85370.
PT Screening for cpds. with anti-heparanase activity - by detecting
PT inhibition of heparin or heparan sulphate degradation,
PT potentially useful for treating arthritis, restenosis, cancer.
PS Claim 13; Page 45; 60pp; English.
CC Purified heparanases, prepared under reducing conditions and
CC activated with transglutaminase, are given in R70786-804. Most
CC are prepared by reverse transcription of mRNA from activated human
CC leukocytes, then cloning of the cDNA into pVL1392 baculovirus
CC vector, and expression in Sf9 cells in the presence of reduced
CC glutathione and dithiothreitol.
SQ Sequence 99 AA;

Query Match 89.1%; Score 90; DB 13; Length 99;
Best Local Similarity 91.7%; Pred. No. 2.12e-02;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

DB 73 elcadvkqkqvq 84
||| |||||
QY 1 EICLDPKQKQWQ 12

RESULT 19
ID P95387 standard; Protein: 99 AA.
AC P95387;
UT 25-JUL-1989 (first entry)
UV Human monocyte chemo-attractant peptide-1.
KW Human monocyte chemo-attractant peptide; inflammatory disease; neoplasms.

OS Homo sapiens.
FH Key Location/Qualifiers
FT protein 24..99
FT /product=MCP-1

PN US7330446-A.
PD 25-JUL-1989;
PR 30-MAR-1989; 330446.
PA (USSH) US Dept. Health and Human.
PI Yoshimura T, Robinson EA, Appella E, Leonard EJ;
DR WPI: 89-300683/41.
DR N-PSDB: N91337.

PT Human derived monocyte chemo-attractant peptide prods. - obt'd. from human
PT glioma cell line U-103MG or peripheral blood mononuclear leukocytes.
PS Disclosure; fig 2; 66pp; English.
CC This is a human-derived monocyte chemo-attractant peptide (MCP-1) sequence
CC MCP-1 exhibits optimal chemotactic activity at a concn. of 1nM and has a
CC mol. mass of c.a. 8,400 D. MCP-1 can be used for treating infection eg
CC inflammatory disease, or for the control of neoplasms by accumulation of
CC monocytes at the site of the infection. The corresp. DNA is obt'd. by
CC chemical synthesis, by screening reverse transcripts of mRNA from
CC purified blood leukocytes or cell cultures of eg U-373 MG or KMG-5.
SQ Sequence 99 AA;

Query Match 89.1%; Score 90; DB 2; Length 99;
Best Local Similarity 91.7%; Pred. No. 2.12e-02;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

DB 73 elcadvkqkqvq 84
||| |||||
QY 1 EICLDPKQKQWQ 12

RESULT 20
ID R28663 standard; Protein: 99 AA.

AC R28663;
DT 24-MAR-1993 (first entry)
DE MCF.
KW Plasmid; monocyte chemotactic factor; MCF; translation;
KW termination; terminator; initiation; ribosome binding site;
KW RBS; promoter; tryptophan; repressor.
OS Synthetic.
FH Key Location/Qualifiers
FT peptide 1..23
FT /label= sig_peptide
FT protein 24..99
FT /label= mat_protein
PN WO9219737-A.
PD 12-NOV-1992.
PF 27-APR-1992; J00550.
PR 09-MAY-1991; JP-135950.
PA (DAIN) DAINIPPON PHARM CO LTD.
PI Fukui T, Matsuo N, Yamada M, Yamagishi J;
DR WPI: 92-398864/48.
DR N-PSDB: Q30748.
PT Prodn. of polypeptide(s) having monocyte chemotactic activity -
PT using expression plasmids with E. coli elements and specific
PT E.coli strains
PS Disclosure; Page 43-44; 56pp; English.
CC An expression plasmid, pHMC076 for producing MCF(76) consisting
CC of 76 amino acids was constructed. DNA encoding MCF(76) was
CC prep'd. using a recombinant plasmid pHMCF7.
SQ Sequence 99 AA;

Query Match 89.1%; Score 90; DB 5; Length 99;
Best Local Similarity 91.7%; Pred. No. 2.12e-02;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

DB 73 elcadvkqkqvq 84
||| |||||
QY 1 EICLDPKQKQWQ 12

RESULT 21
ID R20237 standard; protein; 29 AA.
AC R20237;
U1 01-MAY-1992 (first entry)
DE NAF(44-72) peptide inhibitor of neutrophil activating factor.
KW bronchitis; neutrophil chemotaxis; ARDS.
OS Synthetic.
PN U55079228-A.
PD 07-JAN-1992.
PR 05-FEB-1990; 475658.
PR 05-FEB-1990; US-475658.
PA (TEXA) UNIV OF TEXAS SYST.
PI Cohen AB, Miller EJ, Nagao S, Carr FK;
DR WPI: 92-041038/05.
PT New peptide inhibitors of neutrophil activating factor - which
PT inhibit chemotaxis, for treating adult respiratory distress
PT syndrome and other inflammatory lesions caused by NAF
PS Claim 8; Column 9; 11pp; English.
CC NAF(44-72) is a preferred peptide derived from NAF which is
CC antagonistic to NAF and has no chemotactic activity. It inhibited
CC NAF-induced migration by 34 per cent. When used with a second
CC preferred peptide, i.e. NAF(3-25) (see R20236) inhibition was 70
CC per cent.
SQ Sequence 29 AA;
Query Match 85.1%; Score 86; DB 4; Length 29;
Best Local Similarity 75.0%; Pred. No. 5.71e-02;
Matches 9; Conservative 3; Mismatches 0; Indels 0; Gaps 0;
Db 5 elcldpkenwq 16
|:|||||:
Qy 1 EICLDPKQKWQ 12
RESULT 22
ID W04515 standard; peptide; 39 AA.
AC W04515;
DT 30-JUN-1997 (first entry)
DE Interleukin-8(34-72) used in novel synthesis method.
KW Thioester; synthesis; ligation; catalysis; thiol; condensation;
KW link; beta-aminothioester; bond; amide; production; disulphide;
KW refolding; oxidation; interleukin 8; IL-8.
OS Synthetic.
PN W09634878-A1.
PD 07-NOV-1996.
PR 04-MAY-1995; U05668.
PR 04-MAY-1995; WO-005668.
PA (SCRI) SCRIPPS RES INST.
PI Dawson PE, Kent SBH, Muir TW;
DR WPI: 96-506095/50.
PT Synthesis of protein by chemical ligation of unprotected peptide(s)
PT - by reaction of N-terminal Cys with C-terminal thioester and
PT spontaneous rearrangement of intermediate prod.
PS Example 3; Page 47; 61pp; English.
CC The present peptide, which has an amino-terminal cysteine residue,
CC was used in a novel synthesis method, comprising the ligation of a
CC 1st oligopeptide (OP) to a 2nd OP, end to end, to produce an OP
CC product. This comprises mixing the 1st and 2nd OP (which have a
CC carboxy-terminal thioester and an amino-terminal Cys with an
CC unoxidised SH side chain) in a solution containing a catalytic
CC thiol, condensing the terminal groups to form an intermediate OP,
CC in which components are linked by a beta-aminothioester bond and
CC rearranging the bond to give a product OP linked by an amide bond.
CC The method can be used for the production of full length proteins,
CC which can be made into native, disulphide containing proteins by
CC refolding and oxidation. The method also combines chemoselective,
CC unprotected, peptide reactions, with native peptide bond formation,
CC increasing the size of protein that can be made by chemical
CC synthesis.
SQ Sequence 39 AA;
Query Match 85.1%; Score 86; DB 22; Length 39;
Best Local Similarity 75.0%; Pred. No. 5.71e-02;

Matches 9; Conservative 3; Mismatches 0; Indels 0; Gaps 0;
Db 15 elcldpkenwq 26
|:|||||:
Qy 1 EICLDPKQKWQ 12
RESULT 23
ID R38087 standard; protein; 67 AA.
AC R38087;
DT 13-OCT-1993 (first entry)
DE Modified human interleukin-8 analogue (3-69).
KW Analogues; modified; neutrophil activators; antagonists; human;
KW competitive antagonist; IL-8; inflammation; treatment; chemotaxis;
KW activity; stimulation; inflammatory response.
OS Synthetic.
PN W09311159-A.
PD 10-JUN-1993.
PR 03-DEC-1992; CA0528.
PR 04-DEC-1991; US-801578.
PA (BIOM-) BIOMEDICAL RES CENT LTD.
PI Clark-Lewis I, Moser B;
DR WPI: 93-196997/24.
PT New interleukin-8 analogues modified in specified region - used as
PT neutrophil activators or for blocking effect of IL-8 on neutrophil(s)
PT for treatment of inflammation
PS Claim 23; Page 30; 47pp; English.
CC The sequence is that of an analogue of interleukin-8 (IL-8) comprising
CC IL-8 residues 3-69. It is able to bind neutrophils and act as a
CC competitive antagonist of IL-8, i.e. it can be used to treat
CC inflammation, e.g. by intravenous injection or oral admin. It can
CC act as a neutrophil activator and so can be used to stimulate an
CC inflammatory response.
SQ Sequence 67 AA;
Query Match 85.1%; Score 86; DB 7; Length 67;
Best Local Similarity 75.0%; Pred. No. 5.71e-02;
Matches 9; Conservative 3; Mismatches 0; Indels 0; Gaps 0;
Db 46 elcldpkenwq 57
|:|||||:
Qy 1 EICLDPKQKWQ 12
RESULT 24
ID R38086 standard; protein; 67 AA.
AC R38086;
DT 13-OCT-1993 (first entry)
DE Modified human interleukin-8 analogue (6-72).
KW Analogues; modified; neutrophil activators; antagonists; human;
KW competitive antagonist; IL-8; inflammation; treatment; chemotaxis;
KW activity; stimulation; inflammatory response.
OS Synthetic.
PN W09311159-A.
PD 10-JUN-1993.
PR 03-DEC-1992; CA0528.
PR 04-DEC-1991; US-801578.
PA (BIOM-) BIOMEDICAL RES CENT LTD.
PI Clark-Lewis I, Moser B;
DR WPI: 93-196997/24.
PT New interleukin-8 analogues modified in specified region - used as
PT neutrophil activators or for blocking effect of IL-8 on neutrophil(s)
PT for treatment of inflammation
PS Claim 19; Page 29; 47pp; English.
CC The sequence is that of an analogue of interleukin-8 (IL-8) comprising
CC IL-8 residues 6-72. It is able to bind neutrophils and act as a
CC competitive antagonist of IL-8, i.e. it can be used to treat
CC inflammation, e.g. by intravenous injection or oral admin. It can
CC act as a neutrophil activator and so can be used to stimulate an
CC inflammatory response.
SQ Sequence 67 AA;
Query Match 85.1%; Score 86; DB 7; Length 67;

Best Local Similarity 75.0%: Pred. No. 5.71e-02;
Matches 9; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Db 43 elcldpkkenwq 54
1 EICLDPKQKRWQ 12

RESULT 25
ID R38085 standard; protein; 68 AA.

AC R38085;
DT 13-OCT-1993 (first entry)
DE Modified human interleukin-8 analogue (5-72).
KW Analogues; modified; neutrophil activators; antagonists; human;
KW competitive antagonist; IL-8; inflammation; treatment; chemotaxis;
KW activity; stimulation; inflammatory response.
OS Synthetic.

PN WO9311159-A.
PD 10-JUN-1993.
PF 03-DEC-1992; CA0528.
PR 04-DEC-1991; US-801578.
PA (BIOM-) BIOMEDICAL RES CENT LTD.
PI Clark-Lewis I, Moser B;
DR WPI: 93-196997/24.

PT New interleukin-8 analogues modified in specified region - used as
PT neutrophil activators or for blocking effect of IL-8 on neutrophil(s)
PS for treatment of inflammation
PS Claim 17; Page 29; 47pp; English.
CC The sequence is that of an analogue of interleukin-8 (IL-8) comprising
CC IL-8 residues 5-72. It is able to bind neutrophils and act as a
CC competitive antagonist of IL-8, i.e. it can be used to treat
CC inflammation, e.g. by intravenous injection or oral admin. It can
CC act as a neutrophil activator and so can be used to stimulate an
CC inflammatory response. It also has strong chemotaxis activity and
CC can be used to attract neutrophils to a diseased area.
SQ Sequence 68 AA;

Query Match 85.1%: Score 86; DB 7; Length 68;
Best Local Similarity 75.0%: Pred. No. 5.71e-02;
Matches 9; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Db 44 elcldpkkenwq 55
1 EICLDPKQKRWQ 12

RESULT 26
ID R38083 standard; protein; 68 AA.

AC R38083;
DT 13-OCT-1993 (first entry)
DE Modified human interleukin-8 analogue 11e5 (6-72).
KW Analogues; modified; neutrophil activators; antagonists; human;
KW competitive antagonist; IL-8; inflammation; treatment; chemotaxis;
KW activity; stimulation; inflammatory response.
OS Synthetic.

FH Key location/Qualifiers
FT region 1
PN WO9311159-A.
PD 10-JUN-1993.
PF 03-DEC-1992; CA0528.
PR 04-DEC-1991; US-801578.
PA (BIOM-) BIOMEDICAL RES CENT LTD.
PI Clark-Lewis I, Moser B;
DR WPI: 93-196997/24.

PT New interleukin-8 analogues modified in specified region - used as
PT neutrophil activators or for blocking effect of IL-8 on neutrophil(s)
PS for treatment of inflammation
PS Claim 15; Page 29; 47pp; English.
CC The sequence is that of an analogue of interleukin-8 (IL-8) comprising
CC IL-8 residues 11e5 (6-72). It is able to bind neutrophils and act
CC as a competitive antagonist of IL-8, i.e. it can be used to treat
CC inflammation, e.g. by intravenous injection or oral admin. It can

CC act as a neutrophil activator and so can be used to stimulate an
CC inflammatory response.
SQ Sequence 68 AA;

Query Match 85.1%: Score 86; DB 7; Length 68;
Best Local Similarity 75.0%: Pred. No. 5.71e-02;
Matches 9; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Db 44 elcldpkkenwq 55
1 EICLDPKQKRWQ 12

RESULT 27
ID R38084 standard; protein; 68 AA.

AC R38084;
DT 13-OCT-1993 (first entry)
DE Modified human interleukin-8 analogue Gln5 (6-72).
KW Analogues; modified; neutrophil activators; antagonists; human;
KW competitive antagonist; IL-8; inflammation; treatment; chemotaxis;
KW activity; stimulation; inflammatory response.
OS Synthetic.

FH Key location/Qualifiers
FT region 1
PN WO9311159-A.
PD 10-JUN-1993.
PF 03-DEC-1992; CA0528.
PR 04-DEC-1991; US-801578.
PA (BIOM-) BIOMEDICAL RES CENT LTD.
PI Clark-Lewis I, Moser B;
DR WPI: 93-196997/24.

PT New interleukin-8 analogues modified in specified region - used as
PT neutrophil activators or for blocking effect of IL-8 on neutrophil(s)
PS for treatment of inflammation
PS Claim 16; Page 29; 47pp; English.
CC The sequence is that of an analogue of interleukin-8 (IL-8) comprising
CC IL-8 residues Gln5 (6-72). It is able to bind neutrophils and act
CC as a competitive antagonist of IL-8, i.e. it can be used to treat
CC inflammation, e.g. by intravenous injection or oral admin. It can
CC act as a neutrophil activator and so can be used to stimulate an
CC inflammatory response.
SQ Sequence 68 AA;

Query Match 85.1%: Score 86; DB 7; Length 68;
Best Local Similarity 75.0%: Pred. No. 5.71e-02;
Matches 9; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Db 44 elcldpkkenwq 55
1 EICLDPKQKRWQ 12

RESULT 28
ID R38081 standard; protein; 69 AA.

AC R38081;
DT 13-OCT-1993 (first entry)
DE Modified human interleukin-8 analogue (4-72).
KW Analogues; modified; neutrophil activators; antagonists; human;
KW competitive antagonist; IL-8; inflammation; treatment; chemotaxis;
KW activity; stimulation; inflammatory response.
OS Synthetic.

PN WO9311159-A.
PD 10-JUN-1993.
PF 03-DEC-1992; CA0528.
PR 04-DEC-1991; US-801578.
PA (BIOM-) BIOMEDICAL RES CENT LTD.
PI Clark-Lewis I, Moser B;
DR WPI: 93-196997/24.

PT New interleukin-8 analogues modified in specified region - used as
PT neutrophil activators or for blocking effect of IL-8 on neutrophil(s)
PS for treatment of inflammation
PS Claim 9; Page 29; 47pp; English.

CC The sequence is that of an analogue of interleukin-8 (IL-8) comprising
 CC IL-8 residues 4-72. It is able to bind neutrophils and act as a
 CC competitive antagonist of IL-8, i.e. it can be used to treat
 CC inflammation, e.g. by intravenous injection or oral admin. It can
 CC act as a neutrophil activator and so can be used to stimulate an
 CC inflammatory response.
 SQ Sequence 69 AA;

Query Match 85.1%; Score 86; DB 7; Length 69;
 Best Local Similarity 75.0%; Pred. No. 5.71e-02;
 Matches 9; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Db 45 elcidpkenwvg 56
 |:|||||:||||
 QY 1 EICLDPKOKWQ 12

RESULT 29
 ID R38082 standard; protein; 69 AA.
 AC R38082;
 DT 13-OCT-1993 (first entry)
 DE Modified human interleukin-8 analogue Ala4Ala5 (6-72).
 KW Analogues; modified; neutrophil activators; antagonists; human;
 KW competitive antagonist; IL-8; inflammation; treatment; chemotaxis;
 KW activity; stimulation; inflammatory response.
 OS Synthetic.
 FH Key
 FT region 1 Location/Qualifiers
 FT region 2 /note= "Glu4 -> Ala"
 FT region /note= "Leu5 -> Ala"
 PN WO931159-A.
 PD 10-JUN-1993.
 PF 03-DEC-1992; CA0528.
 PR 04-DEC-1991; US-801578.
 PA (BIOM-) BIOMEDICAL RES CENT LTD.
 PI Clark-Lewis I, Moser B;
 DR WPI: 93-196997/24.
 PT New interleukin-8 analogues modified in specified region - used as
 PT neutrophil activators or for blocking effect of IL-8 on neutrophil(s)
 PS for treatment of inflammation
 PS Claim 10: Page 29; 47pp; English.
 CC The sequence is that of an analogue of interleukin-8 (IL-8) comprising
 CC IL-8 residues Ala4Ala5 (6-72). It is able to bind neutrophils and act
 CC as a competitive antagonist of IL-8, i.e. it can be used to treat
 CC inflammation, e.g. by intravenous injection or oral admin. It can
 CC act as a neutrophil activator and so can be used to stimulate an
 CC inflammatory response.
 SQ Sequence 69 AA;

Query Match 85.1%; Score 86; DB 7; Length 69;
 Best Local Similarity 75.0%; Pred. No. 5.71e-02;
 Matches 9; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Db 45 elcidpkenwvg 56
 |:|||||:||||
 QY 1 EICLDPKOKWQ 12

RESULT 30
 ID W22675 standard; Protein; 71 AA.
 AC W22675;
 DT 19-MAR-1998 (first entry)
 DE Drol3+ chemokine betalo or monocyte chemotactic protein 4 variant.
 KW Human; Chemokine betalo; Ck betalo; treatment; antagonist;
 KW solid tumour; infection; autoimmune disease; asthma; antibody;
 KW fibrotic disease; psoriasis; neurodegenerative disease;
 KW wound healing; haematopoiesis; regulation; gene therapy;
 KW chromosome identification; monocyte chemotactic protein 4;
 KW leukaemia; MCP-4; Drol3+ variant.
 OS Homo sapiens.
 PN WO9731098-A1.
 PD 28-AUG-1997.

PF 23-FEB-1996; U02598.
 PR 23-FEB-1996; WO-U02598.
 PA (HOMA-) HUMAN GENOME SCI INC.
 PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
 PI Parmelee D, White J;
 DR WPI: 97-435153/40.
 PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
 PT protein 4 useful to treat tumours, autoimmune disease, infection,
 PT asthma and fibrosis
 PS Example 11: Fig 5; 83pp; English.
 CC The present sequence is human chemokine betalo (Ck betalo) or
 CC monocyte chemotactic protein 4 (MCP-4) Drol3+ variant, which can
 CC be used to treat patients deficient in Ck betalo, while a Ck betalo
 CC antagonist can be used to reduce excessive levels of Ck betalo. Ck
 CC betalo can be used to treat leukaemia, solid tumours, chronic or
 CC opportunistic infections, autoimmune diseases, asthma, fibrotic
 CC diseases, psoriasis and neurodegenerative diseases. It also
 CC promotes wound healing, regulates haematopoiesis and generates
 CC antibodies. Labelled Ck betalo can be used to identify its cognate
 CC receptor, while cells expressing the receptor can be used to screen
 CC compounds for (ant)agonist activity. The antagonist can be used to
 CC treat rheumatoid arthritis, arthritis, autoimmune, chronic inflammatory or
 CC infectious diseases, allergies, prostaglandin dependent fever and
 CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
 CC syndrome, lung inflammation and atherosclerosis. Ck betalo cDNA can
 CC be used to isolate genes encoding similar peptides, in gene therapy
 CC and for chromosome identification.
 SQ Sequence 71 AA;

Query Match 85.1%; Score 86; DB 27; Length 71;
 Best Local Similarity 83.3%; Pred. No. 5.71e-02;
 Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 45 elcadpkekwwg 56
 ||| |||:||||
 QY 1 EICLDPKOKWQ 12

Search completed: Thu Apr 1 07:36:04 1999
 Job time : 24 secs.

97 51 50.5 677 2 S65573 phosphate-specific tr 4.44e+01
 98 51 50.5 735 2 A69146 hypothetical protein 4.44e+01
 99 51 50.5 1038 2 A11437 probable resistance g 4.44e+01
 100 51 50.5 1053 2 D71466 probable ribonucleosi 4.44e+01

ALIGNMENTS

RESULT 1 #type complete
 ENTRY interleukin-8 - dog
 TITLE #formal_name Canis lupus familiaris #common_name dog
 ORGANISM
 DATE 19-May-1994 #sequence_revision 19-May-1994 #text_change 12-Apr-1995

ACCESSIONS JN0841
 REFERENCE JN0841
 #authors Ishikawa, J.; Suzuki, S.; Hotta, K.; Hirota, Y.; Mizuno, S.; Suzuki, K.

#journal Gene (1993) 131:305-306
 #title Cloning of a canine gene homologous to the human interleukin-8-encoding gene.

#accession JN0841
 ##molecule_type DNA
 ##residues 1-95 #label ISH
 COMMENT This protein is a polymorphonuclear leukocytes chemotactic factor and is involved in the host defense function.

GENETICS 22/1; 67/2
 #introns
 CLASSIFICATION #superfamily beta-thromboglobulin
 SUMMARY #length 95 #molecular_weight 10611 #checksum 3157

Query Match 94.1%; Score 95; DB 2; Length 95;
 Best Local Similarity 83.3%; Pred. No. 8.37e-08;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 75 EVCLDPKRWQ 86
 1 EICLDPKRWQ 12

RESULT 2 #type complete
 ENTRY interleukin 8 - sheep
 TITLE #formal_name Ovis orientalis aries, Ovis ammon aries
 ORGANISM #common_name domestic sheep
 DATE 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 08-Sep-1997

ACCESSIONS S42496
 REFERENCE S42496
 #authors Legastelois, I.; Greenland, T.; Arnaud, P.; Mornex, J.F.; Cordier, G.

#submission submitted to the EMBL Data Library, March 1994
 #description Nucleotide sequence of ovine interleukin 8 cDNA using polymerase chain reaction.

#accession S42496
 ##status preliminary
 ##molecule_type mRNA
 ##residues 1-101 #label LEG
 ##cross-references EMBL:X78306; NID:g463253; PID:g463254
 CLASSIFICATION #superfamily beta-thromboglobulin
 SUMMARY #length 101 #molecular_weight 11292 #checksum 294

Query Match 94.1%; Score 95; DB 2; Length 101;
 Best Local Similarity 83.3%; Pred. No. 8.37e-08;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 75 EVCLDPKRWQ 86
 1 EICLDPKRWQ 12

RESULT 3 #type complete
 ENTRY 146997

TITLE interleukin-8 - sheep
 ORGANISM #formal_name Ovis sp. #common_name sheep
 DATE 21-Feb-1997 #sequence_revision 21-Feb-1997 #text_change 09-May-1997

ACCESSIONS I46997
 REFERENCE I46997
 #authors Seow, H.F.; Yoshimura, T.; Wood, P.R.; Colditz, I.G.
 #journal Immunol. Cell Biol. (1994) 72:396-405
 #title Cloning, sequencing, expression and inflammatory activity in skin of ovine interleukin-8.
 #cross-references MVID:95137691

#accession I46997
 ##status preliminary; translated from GB/EMBL/DBJ
 ##molecule_type mRNA
 ##residues 1-101 #label SEO
 ##cross-references GB:S74436; NID:g786590; PID:g786591

GENETICS OIL-8
 CLASSIFICATION #superfamily beta-thromboglobulin
 SUMMARY #length 101 #molecular_weight 11292 #checksum 294

Query Match 94.1%; Score 95; DB 2; Length 101;
 Best Local Similarity 83.3%; Pred. No. 8.37e-08;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 75 EVCLDPKRWQ 86
 1 EICLDPKRWQ 12

RESULT 4 #type complete
 ENTRY interleukin-8 precursor - pig
 TITLE #formal_name Sus scrofa domestica #common_name domestic pig
 ORGANISM
 DATE 02-Jun-1995 #sequence_revision 02-Jun-1995 #text_change 08-Sep-1997

ACCESSIONS A53096
 REFERENCE A53096
 #authors Lin, G.; Pearson, A.E.; Scamurra, R.W.; Zhou, Y.; Baarsch, M.J.; Weiss, D.J.; Murlaugh, M.P.
 #journal J. Biol. Chem. (1994) 269:77-85
 #title Regulation of interleukin-8 expression in porcine alveolar macrophages by bacterial lipopolysaccharide.

#accession A53096
 ##status preliminary
 ##molecule_type mRNA
 ##residues 1-103 #label LIN
 ##cross-references GB:M86923; NID:g164520; PID:g164521
 CLASSIFICATION #superfamily beta-thromboglobulin
 SUMMARY #length 103 #molecular_weight 11633 #checksum 8835

Query Match 94.1%; Score 95; DB 2; Length 103;
 Best Local Similarity 83.3%; Pred. No. 8.37e-08;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 75 EVCLDPKRWQ 86
 1 EICLDPKRWQ 12

RESULT 5 #type complete
 ENTRY alveolar macrophage chemotactic factor-I (AMCF-I)
 TITLE interleukin-8 homolog - pig
 ORGANISM #formal_name Sus scrofa domestica #common_name domestic pig
 DATE 30-Apr-1993 #sequence_revision 18-Nov-1994 #text_change 23-Feb-1996

ACCESSIONS A44253
 REFERENCE A44253
 #authors Goodman, R.B.; Foster, D.C.; Mathewes, S.L.; Osborn, S.G.; Kujper, J.L.; Forstrom, J.W.; Martin, T.R.
 #journal Biochemistry (1992) 31:10483-10490
 #title Molecular cloning of porcine alveolar macrophage-derived

neutrophil chemotactic factors I and II: identification of porcine IL-8 and another interleukin-alpha protein.

#cross-references MWID:93041741

#accession A44253

#status preliminary

#molecule-type mRNA; protein

#residues 1-103 ##label GOO

#experimental-source alveolar macrophage

#note sequence extracted from NCBI backbone (NCBIN:117415, NCBIP:117416)

CLASSIFICATION #superfamily beta-thromboglobulin

SUMMARY #length 103 #molecular-weight 11677 #checksum 8904

Query Match 94.1%; Score 95; DB 2; Length 103;

Best Local Similarity 83.3%; Pred. No. 8,37e-08;

Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 75 EICLDPKRWQ 86

OY 1 EICLDPKRWQ 12

RESULT 6

ENTRY I46871 #type complete

TITLE interleukin-8 - rabbit

ALTERNATE_NAMES neutrophil attractant/activation protein-1

ORGANISM #formal_name Oryctolagus cuniculus #common_name domestic rabbit

DATE 14-Feb-1997 #sequence-revision 14-Feb-1997 #text-change 09-Aug-1997

ACCESSIONS I46871: S13052

REFERENCE I46857

#authors Yoshimura, T.; Yuhki, N.

#journal J. Immunol. (1991) 146:3483-3488

#title Neutrophil attractant/activation protein-1 and monocyte chemoattractant protein-1 in rabbit: cDNA cloning and their expression in spleen cells.

#cross-references MWID:9125489

#accession I46871

#status preliminary; translated from GB/EMBL/DBJ

#molecule-type mRNA

#residues 1-101 ##label YOS

#cross-references GB:M57439; NID:g165552; PID:g165553

REFERENCE S13052

#authors Beaubien, B.C.; Collins, P.D.; Jose, P.J.; Totty, N.F.; Blochem, J. (1990) 271:797-801

#journal A novel neutrophil chemoattractant generated during an inflammatory reaction in the rabbit peritoneal cavity in vivo. Purification, partial amino acid sequence and structural relationship to interleukin 8.

#cross-references MWID:9105818

#accession S13052

#molecule-type protein

#residues 23-33 'X', 35 'X', 37-46 'X', 48-49 'Y', 51-53 ##label BEA

CLASSIFICATION #superfamily beta-thromboglobulin

KEYWORDS cytokine

SUMMARY #length 101 #molecular-weight 11402 #checksum 1085

Query Match 91.1%; Score 92; DB 2; Length 101;

Best Local Similarity 83.3%; Pred. No. 3,85e-07;

Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 75 EICLDPKRWQ 86

OY 1 EICLDPKRWQ 12

RESULT 7

ENTRY A60299 #type complete

TITLE monocyte chemoattractant protein 1 precursor - human

ALTERNATE_NAMES GDF-1; glioma-derived monocyte chemoattractant factor 1; MCP-1; monocyte chemotactic factor 1; monocyte secretory

protein: tumor-derived chemotactic factor glioma-derived chemotactic factor 2 (GDCF-2)

#formal_name Homo sapiens #common_name man

20-Feb-1993 #sequence-revision 20-Feb-1993 #text-change 20-Mar-1998

ACCESSIONS A35474: S03339; I51841; A60299; A32300; A32396; A34561; I57488; JC1096

REFERENCE A35474

#authors Shyy, Y.-J.; Li, Y.-S.; Kolattukudy, P.E.

#journal Biochem. Biophys. Res. Commun. (1990) 169:346-351

#title Structure of human monocyte chemotactic protein gene and its regulation by TPA.

#cross-references MWID:90290466

#accession A35474

#molecule-type DNA

#residues 1-99 ##label SHY

#cross-references GB:M37719; NID:g187447; PID:g487124

REFERENCE A33476

#authors Rollins, B.J.; Stier, P.; Ernst, T.; Wong, G.G.

#journal Mol. Cell. Biol. (1989) 9:4687-4695

#title The human homolog of the JE gene encodes a monocyte secretory protein.

#cross-references MWID:90097880

#accession A33476

#molecule-type mRNA

#residues 1-99 ##label ROL

#cross-references GB:M30816; GB:M31625; GB:M31626; NID:g188701; PID:g386961

REFERENCE S03339

#authors Yoshimura, T.; Yuhki, N.; Moore, S.K.; Appella, E.; Lerman, M.T.; Leonard, E.J.

#journal FBS Lett. (1988) 244:487-493

#title Human monocyte chemoattractant protein-1 (MCP-1). Full-length cDNA cloning, expression in mitogen-stimulated blood mononuclear leukocytes, and sequence similarity to mouse competence gene JE.

#cross-references MWID:89153605

#accession S03339

#status not compared with conceptual translation

#molecule-type mRNA

#residues 1-99 ##label YOS

#cross-references GB:X14768; NID:g34513; PID:g34514

#experimental-source glioma cell line U-105MG

REFERENCE I51841

#authors Yoshimura, T.; Leonard, E.J.

#journal Adv. Exp. Med. Biol. (1991) 305:47-56

#title Human monocyte chemoattractant protein-1 (MCP-1).

#cross-references MWID:92095166

#accession I51841

#status preliminary; translated from GB/EMBL/DBJ

#molecule-type mRNA

#residues 1-99 ##label YO2

#cross-references GB:G71513; NID:g240867; PID:g240868

REFERENCE A60299

#authors Bottazzi, B.; Colotta, F.; Sica, A.; Nobili, N.; Mantovani, A.

#journal Int. J. Cancer (1990) 45:795-797

#title A chemoattractant expressed in human sarcoma cells (tumor-derived chemotactic factor, TDCF) is identical to monocyte chemoattractant protein-1/monocyte chemotactic and activating factor (MCP-1/MCAF).

#accession A60299

#status not compared with conceptual translation

#molecule-type mRNA

#residues 1-99 ##label BOT

REFERENCE A32300

#authors Furutani, Y.; Nomura, H.; Notake, M.; Oyama, Y.; Fukui, T.; Yamada, M.; Larsen, C.G.; Oppenheim, J.J.; Matsushima, K.

#journal Biochem. Biophys. Res. Commun. (1989) 159:249-255

#title Cloning and sequencing of the cDNA for human monocyte chemotactic and activating factor (MCAF).

#cross-references MWID:89165862

#accession A32300

##status not compared with conceptual translation
##molecule_type mRNA
##residues 1-99 ##label FUR
##cross-references GB:M24545; NID:g187434; PID:g307163
REFERENCE A32396
#authors Robinson, E.A.; Yoshimura, T.; Leonard, E.J.; Tanaka, S.; Griffin, P.R.; Shabanowitz, J.; Hunt, D.F.; Appella, E.
#journal Proc. Natl. Acad. Sci. U.S.A. (1989) 86:1850-1854
#title Complete amino acid sequence of a human monocyte chemoattractant, a putative mediator of cellular immune reactions.
#cross-references MUID:89184525
#accession A32396
##molecule_type protein
##residues 1-99 ##label ROB
REFERENCE A34561
#authors Decock, B.; Conings, R.; Lenaerts, J.P.; Billiau, A.; Van Damme, J.
#journal Biochem. Biophys. Res. Commun. (1990) 167:904-909
#title Identification of the monocyte chemoattractant protein from human osteosarcoma cells and monocytes: detection of a novel N-terminally processed form.
#cross-references MUID:90211336
#accession A34561
##molecule_type protein
##residues 29-33, 'XX', 36-52; 82-92 ##label DEC
REFERENCE I57488
#authors Li, Y.S.; Shyy, Y.J.; Wright, J.G.; Valente, A.J.; Cornhill, J.F.; Kolattukudy, P.E.
#journal Mol. Cell. Biochem. (1993) 126:61-68
#title The expression of monocyte chemoattractant protein (MCP-1) in human vascular endothelium in vitro and in vivo.
#cross-references MUID:94150478
#accession I57488
##status translated from GB/EMBL/DBJ
##molecule_type mRNA
##residues 1-99 ##label LIY
##cross-references GB:S69738; NID:g545464; PID:g545465
REFERENCE J01096
#authors Ye, Q.N.; Su, G.F.; Yuan, Y.; Huang, C.F.; Chinese J. Microbiol. Immunol. (1994) 14:29-32
#journal The PCR, cloning and sequencing of human monocyte chemoattractant protein-1 (MCP-1) gene.
#accession J01096
##molecule_type mRNA
##residues 24-28, 'Q', 30-99 ##label YEO
GENETICS GDB:SCYA2
#gene #cross-references GDB:125279; OMIM:158105
#position 17q11.2-17q12
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS cytokine; glycoprotein; inflammatory; pyroglutamic acid
FEATURE 1-23
24-99 #domain signal sequence #status predicted #label SIG\
#product monocyte chemoattractant protein 1 #status experimental #label MAT\
29-99 #product monocyte chemoattractant protein 1, short form
#status experimental #label MAT\
24 #modified_site pyrrolidone carboxylic acid (Gln) (1n mature form) #status experimental\
37 #binding_site carbohydrate (Asn) (covalent) #status predicted
SUMMARY #length 99 #molecular-weight 11025 #checksum 7984
Query Match 89.1%; Score 90; DB 2; Length 99;
Best Local Similarity 91.7%; Pred. No. 1.05e-06;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

DB 73 EICADPKOKWQ 84
||| |||||
QY 1 EICLDPKOKWQ 12

RESULT 8
ENTRY JC2136 #type complete
TITLE monocyte chemoattractant protein-1 precursor - pig
ORGANISM #formal_name Sus scrofa domestica #common_name domestic pig
DATE 30-Sep-1993 #sequence_revision 20-Aug-1994 #text_change 08-Sep-1997
ACCESSIONS JC2136; S57498
REFERENCE JC2136
#authors Hosang, K.; Knoke, I.; Klaudiny, J.; Wempe, F.; Wuttke, W.; Scheit, K.H.
#journal Biochem. Biophys. Res. Commun. (1994) 199:962-968
#title Porcine luteal cells express monocyte chemoattractant protein-1 (MCP-1): Analysis by polymerase chain reaction and cDNA cloning.
#accession JC2136
##molecule_type mRNA
##residues 1-99 ##label HOS
REFERENCE S57497
#authors Zach, O.
#submission submitted to the EMBL Data Library, July 1994
#accession S57498
##status preliminary
##molecule_type mRNA
##residues 1-99 ##label ZAC
##cross-references EMBL:X79416; NID:g872312; PID:g872313
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS glycoprotein
FEATURE 1-23
24-99 #domain signal sequence #status predicted #label SIG\
#product monocyte chemoattractant protein-1 #status predicted #label MAT\
#binding_site carbohydrate (Asn) (covalent) #status predicted
94 #length 99 #molecular-weight 10976 #checksum 9768
SUMMARY
Query Match 88.1%; Score 89; DB 2; Length 99;
Best Local Similarity 83.3%; Pred. No. 1.74e-06;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
DB 73 EICADPKOKWQ 84
||| |||||
QY 1 EICLDPKOKWQ 12
RESULT 9
ENTRY A37034 #type complete
TITLE interleukin-8 precursor - human
ALTERNATE_NAMES beta-thromboglobulin-like protein; fibroblast-derived neutrophil-activating factor alpha; lung carcinoma-derived chemotaxin; lymphocyte-derived neutrophil-activating factor; monocyte-derived neutrophil chemotactic factor; monocyte-derived neutrophil-activating factor
ORGANISM #formal_name Homo sapiens #common_name man
DATE 08-Dec-1992 #sequence_revision 08-Dec-1992 #text_change 13-Sep-1998
ACCESSIONS A37034; J00041; A32791; S37634; P0107; A28598; A27486; A39960; A60401; A60591; S15827; S04216; A60567; A60847; S15417; S03975; I54560; I55992; I37902; S67519
REFERENCE A37034
#authors Mukaida, N.; Shiroo, M.; Matsushima, K.; J. Immunol. (1989) 143:1366-1371
#journal Genomic structure of the human monocyte-derived neutrophil chemoattractant factor IL-8.
#cross-references MUID:89309826
#accession A37034
##molecule_type DNA
##residues 1-99 ##label MUK
##cross-references GB:M28130; NID:g186367; PID:g186368
#note The authors failed to translate the last thirty-six nucleotides of the second exon
REFERENCE J00041
#authors Matsushima, K.; Morishita, K.; Yoshimura, T.; Iavru, S.; Kobayashi, Y.; Lew, W.; Appella, E.; Kung, H.F.; Leonard,

E. J.; Oppenheim, J. J.
#journal J. Exp. Med. (1988) 167:1883-1893
#title Molecular cloning of a human monocyte-derived neutrophil chemotactic factor (MNCFC) and the induction of MNCFC mRNA by interleukin 1 and tumor necrosis factor.
#cross-references MUID:88258376
#accession J10041
##molecule-type mRNA
##residues 1-99 ##label MA1
##cross-references EMBL:Y00787; NID:934518; PID:934519
#note the sequence shows similarity to several platelet-derived factors, a v-src-induced protein, a growth-regulated gene product (gro), and an IFN-gamma inducible protein

REFERENCE
#authors Kowalski, J.; Denhardt, D. T.
#journal Mol. Cell. Biol. (1989) 9:1946-1957
#title Regulation of the mRNA for monocyte-derived neutrophil-activating peptide in differentiating HL60 promyelocytes.
#cross-references MUID:89315739
#accession A32791
##molecule-type mRNA
##residues 1-99 ##label KOM
##cross-references GB:M26383; NID:9188627; PID:9188628

REFERENCE
#authors King, C. H.; Gordon, G. S.; Konieczkowski, M.; Sedor, J. R.
#submission Submitted to the EMBL Data Library, February 1992
#accession S37634
##status preliminary
##molecule-type mRNA
##residues 1-97 ##label KIN
##cross-references EMBL:Z11666; NID:933958; PID:933959

REFERENCE
#authors Suzuki, K.; Miyasaka, H.; Ota, H.; Yamakawa, Y.; Tagawa, M.; Kuramoto, A.; Mizuno, S.
#journal J. Exp. Med. (1989) 169:1895-1901
#title Purification and partial primary sequence of a chemotactic protein for polymorphonuclear leukocytes derived from human lung giant cell carcinoma L065C cells.
#cross-references MUID:89279141
#accession P10107
##molecule-type protein
##residues 23-32, 'X', '35', 'X', '37-55', 'V', '54' ##label SUZ
##experimental-source lung giant cell carcinoma L065C

REFERENCE
#authors Gregory, H.; Young, J.; Schroeder, J. M.; Mrowietz, U.; Christophers, E.
#journal Biochem. Biophys. Res. Commun. (1988) 151:883-890
#title Structure determination of a human lymphocyte derived neutrophil activating peptide (LYNAP).
#cross-references MUID:88162914
#accession A28598
##molecule-type protein
##residues 28-99 ##label GRE

REFERENCE
#authors Walz, A.; Beverl, P.; Aschauer, H.; Baggiolini, M.
#journal Biochem. Biophys. Res. Commun. (1987) 149:755-761
#title Purification and amino acid sequencing of NAF, a novel neutrophil-activating factor produced by monocytes.
#cross-references MUID:88106502
#accession A27488
##molecule-type protein
##residues 28-59 ##label WAL

REFERENCE
#authors Yoshimura, T.; Matsushima, K.; Tanaka, S.; Robinson, E. A.; Appella, E.; Oppenheim, J. J.; Leonard, E. J.
#journal Proc. Natl. Acad. Sci. U.S.A. (1987) 84:9233-9237
#title Purification of a human monocyte-derived neutrophil chemotactic factor that has peptide sequence similarity to other host defense cytokines.
#cross-references MUID:88097462
#accession A39960

##molecule-type protein
##residues 28-69 ##label YOS

REFERENCE
#authors Schroeder, J. M.; Sticherling, M.; Henneicke, H. H.; Preissner, W. C.; Christophers, E.
#journal J. Immunol. (1990) 144:2223-2232
#title IL-1alpha or tumor necrosis factor-alpha stimulate release of three NAF-1/IL-8-related neutrophil chemotactic proteins in human dermal fibroblasts.
#cross-references MUID:90187866
#accession A60401
##molecule-type protein
##residues 23-32 ##label SCH
##experimental-source dermal fibroblasts
#note a minor component of this material (15%) includes an additional two amino acids at the amino end

REFERENCE
#authors Van Damme, J.; Decock, B.; Conings, R.; Lenaerts, J. P.; Opdenakker, G.; Billiau, A.
#journal Eur. J. Immunol. (1989) 19:1189-1194
#title The chemotactic activity for granulocytes produced by virally infected fibroblasts is identical to monocyte-derived interleukin 8.
#accession A60591
##molecule-type protein
##residues 23-33, 'X', '35', 'X', '37-42' ##label VAN

REFERENCE
#authors Nakagawa, H.; Hatakeyama, S.; Ikeue, A.; Miyai, H.
#journal FEBS Lett. (1991) 282:412-414
#title Generation of interleukin-8 by plasmin from AVLP-interleukin-8, the human fibroblast-derived neutrophil chemotactic factor.
#cross-references MUID:91243843
#accession S15827
##molecule-type protein
##residues 23-33, 'X', '35', 'X', '37-47' ##label FEB

REFERENCE
#authors Van Damme, J.; Van Beeumen, J.; Conings, R.; Decock, B.; Billiau, A.
#journal Eur. J. Biochem. (1989) 181:337-344
#title Purification of granulocyte chemotactic peptide/interleukin-8 reveals N-terminal sequence heterogeneity similar to that of beta-thromboglobulin.
#cross-references MUID:89231715
#accession S04216
##molecule-type protein
##residues 21-67 ##label VA2

REFERENCE
#authors Yoshimura, T.; Robinson, E. A.; Appella, E.; Matsushima, K.; Showalter, S. D.; Skeel, A.; Leonard, E. J.
#journal Mol. Immunol. (1989) 26:87-93
#title Three forms of monocyte-derived neutrophil chemotactic factor (MNCFC) distinguished by different lengths of the amino-terminal sequence.
#accession A60567
##molecule-type protein
##residues 21-33, 'X', '35', 'X', '37-47' ##label YO2
#note the forms starting from positions 21, 23, and 28 represented 8%, 47%, and 45%, respectively, of total interleukin-8

REFERENCE
#authors Van Damme, J.; Van Beeumen, J.; Opdenakker, G.; Billiau, A.
#journal J. Exp. Med. (1988) 167:1364-1376
#title A novel, NH-2-terminal sequence-characterized human monokine possessing neutrophil chemotactic, skin-reactive, and granulocytosis-promoting activity.
#accession A60847
##molecule-type protein
##residues 28-47 ##label VA3

REFERENCE
#authors Car, B. D.; Baggiolini, M.; Walz, A.
#journal Biochem. J. (1991) 275:581-584
#title Formation of neutrophil-activating peptide 2 from

platelet-derived connective-tissue-activating peptide III
by different tissue proteinases.

#cross-references MUID:91248083
#accession S15417
#status preliminary
#molecule-type protein
#residues 28-99 ##label CAR

REFERENCE S03975
#authors Golds, E.E.; Mason, P.; Nyirkos, P.
#journal Biochem. J. (1989) 259:585-588
#title Inflammatory cytokines induce synthesis and secretion of gro protein and a neutrophil chemotactic factor but not beta-2-microglobulin in human synovial cells and fibroblasts

#cross-references MUID:89246368
#accession S03975
#molecule-type protein
#residues 23-46 ##label GOL

REFERENCE I54560
#authors Hotta, K.; Hayashi, K.; Ishikawa, J.; Tagawa, M.; Hashimoto, K.; Mizuno, S.; Suzuki, K.
#journal Immunol. Lett. (1990) 24:165-170
#title Coding region structure of interleukin-8 gene of human lung giant cell carcinoma LU65C cells that produce LUCF/interleukin-8: homogeneity in interleukin-8 genes.
#cross-references MUID:90346419

...
Note: remainder of annotations omitted.

Query Match .85.1%; Score 86; DB 2; Length 99;
Best Local Similarity 75.0%; Pred. No. 7.74e-06;
Matches 9; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Db 75 ELCIDPKKRWQ 86
I:|||||:||||
QY 1 EICIDPKKRWQ 12

RESULT 10
ENTRY I48148 #type complete
TITLE Neutrophil attractant protein-1 - guinea pig
ORGANISM #formal_name Cavia porcellus #common_name guinea pig
DATE 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 23-Feb-1997

ACCESSIONS I48148
REFERENCE I48148
#authors Yoshimura, T.; Johnson, D.G.
#journal J. Immunol. (1993) 151:6225-6236
#title cDNA cloning and expression of guinea pig neutrophil attractant protein-1 (NAP-1): NAP-1 is highly conserved in guinea pig

#cross-references MUID:94065176
#accession I48148
#status preliminary: translated from GB/EMBL/DBJ
#molecule-type DNA
#residues 1-101 ##label RES
#cross-references GB:I04986; NID:9459764; PID:9459765

GENETICS
#gene NAP-1
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 101 #molecular-weight 11414 #checksum 2363

Query Match 85.1%; Score 86; DB 2; Length 101;
Best Local Similarity 75.0%; Pred. No. 7.74e-06;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 75 QLCIDPKKRWQ 86
I:|||||:||||
QY 1 EICIDPKKRWQ 12

RESULT 11
ENTRY A39296 #type complete

TITLE
ALTERNATE_NAMES
ORGANISM
DATE
ACCESSIONS
REFERENCE
#authors
#journal
#title
#cross-references MUID:92096117
#accession A39296
#molecule-type mRNA
#residues 1-99 ##label WEM
#cross-references GB:M84602; GB:M85264; NID:g163394; PID:g163395
#accession B39296
#molecule-type protein
#residues 50-68,'X',70-74,'X',76 ##label WE2
#experimental_source seminal vesicle
#superfamily macrophage inflammatory protein glycoprotein
FEATURE 1-23
24-99
94
#domain signal sequence #status predicted #label SIG\predicted
#product monocytic chemottractant protein 1 #status predicted
#binding_site carbohydrate (Asn) (covalent) #status predicted

SUMMARY #length 99 #molecular-weight 11114 #checksum 9401

Query Match 84.2%; Score 85; DB 2; Length 99;
Best Local Similarity 83.3%; Pred. No. 1.27e-05;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 73 ELCADPKRWQ 84
I:|||||:||||
QY 1 EICADPKRWQ 12

RESULT 12
ENTRY JC2336 #type complete
TITLE monocyte chemoattractant protein-1 - bovine
ORGANISM #formal_name Bos primigenius indicus #common_name zebu cattle
DATE 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change 03-May-1996

ACCESSIONS JC2336
REFERENCE JC2336
#authors Wempe, F.; Kuhlmann, J.K.; Schelt, K.H.
#journal Biochem. Biophys. Res. Commun. (1994) 202:1272-1279.
#title Characterization of the bovine monocyte chemoattractant protein-1 gene.

#accession JC2336
#molecule-type protein
#residues 1-99 ##label WEM

GENETICS
#gene MCP-1
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 99 #molecular-weight 11114 #checksum 9401

Query Match 84.2%; Score 85; DB 2; Length 99;
Best Local Similarity 83.3%; Pred. No. 1.27e-05;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 73 EICADPKRWQ 84
I:|||||:||||
QY 1 EICADPKRWQ 12

RESULT 13
ENTRY I46857 #type complete
TITLE monocyte chemoattractant protein-1 - rabbit


```
GENETICS
#gene MCP-1
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 120 #molecular-weight 13741 #checksum 9252

Query Match
Best Local Similarity 80.2%; Score 81; DB 2; Length 120;
Matches 9; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 71 EVCADPQKRWQ 82
1 EICLDPKQKRWQ 12

RESULT 17
ENTRY JC4912 #type complete
TITLE eotaxin - human
ORGANISM #formal_name Homo sapiens #common_name man
DATE 01-Nov-1996 #sequence_revision 01-Nov-1996 #text_change
08-Sep-1997

ACCESSIONS
REFERENCE JC4912
#authors Bartels, J.; Schlueter, C.; Richter, E.; Noso, N.; Kulke, R.;
#journal Christophers, E.; Schroeder, J.M.
#title Biochem. Biophys. Res. Commun. (1996) 225:1045-1051
#title Human dermal fibroblasts express eotaxin: Molecular cloning,
#title mRNA expression, and identification of eotaxin sequence
#title variants.
#accession JC4912
#status preliminary
#molecule_type mRNA
#residues 1-97 #label BAR
#cross-references EMBL:275668; NID:g1531982; PID:e251275; PID:g1531983
COMMENT #experimental_source dermal fibroblast
#protein This protein has eosinophil specific chemotactic activity.
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS fibroblast
FEATURE
1-18 #domain signal sequence #status predicted #label SIG\
19-97 #product eotaxin #status predicted #label MAT
SUMMARY #length 97 #molecular-weight 10790 #checksum 448

Query Match
Best Local Similarity 78.2%; Score 79; DB 2; Length 97;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 71 DICADPKRWQ 82
1 EICLDPKQKRWQ 12

RESULT 18
ENTRY A53497 #type complete
TITLE pre-B-cell growth-stimulating factor precursor - mouse
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE 02-Jun-1994 #sequence_revision 02-Jun-1994 #text_change
10-Sep-1997

ACCESSIONS
REFERENCE A53497
#authors Nagasawa, T.; Kikutani, H.; Kishimoto, T.
#journal Proc. Natl. Acad. Sci. U.S.A. (1994) 91:2305-2309
#title Molecular cloning and structure of a pre-B-cell
#title growth-stimulating factor.
#accession A53497
#status preliminary
#molecule_type mRNA
#residues 1-89 #label NAG
#cross-references GB:D21072; NID:g413905; PID:d1005177; PID:g468457
REFERENCE I59582
#authors Tashiro, K.; Tada, H.; Heilker, R.; Shirozu, M.; Nakano, T.;
#journal Honjo, T.
#title Science (1993) 261:600-603
#title Signal sequence trap: a cloning strategy for secreted
```

```
proteins and type I membrane proteins.
#cross-references MUID:93342488
#accession I59582
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-89 #label RES
#cross-references GB:L12029; NID:g393179; PID:g393180

GENETICS
#gene SDF-1-alpha
KEYWORDS cytokine
SUMMARY #length 89 #molecular-weight 10032 #checksum 4622

Query Match
Best Local Similarity 77.2%; Score 78; DB 2; Length 89;
Matches 7; Conservative 4; Mismatches 1; Indels 0; Gaps 0;

Db 69 QVCIDPKLKWQ 80
1 EICLDPKQKRWQ 12

RESULT 19
ENTRY I53416 #type complete
TITLE interleukin-8 homolog - mouse
ORGANISM #formal_name Mus sp. #common_name mouse
DATE 02-Aug-1996 #sequence_revision 02-Aug-1996 #text_change
28-Feb-1997

ACCESSIONS
REFERENCE I53416
#authors Jiang, W.; Zhou, P.; Kahn, S.M.; Tomlita, N.; Johnson, M.D.;
#journal Weinstein, I.B.
#title Exp. Cell Res. (1994) 215:284-293
#title Molecular cloning of TPRL, a gene whose expression is
#title repressed by the tumor promoter 12-O-tetradecanoylphorbol
#title 13-acetate (TPA).
#cross-references MUID:95073497
#accession I53416
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-89 #label RES
#cross-references GB:S74318; NID:g786393; PID:g786394

GENETICS
#gene TPRL
SUMMARY #length 89 #molecular-weight 10032 #checksum 4622

Query Match
Best Local Similarity 77.2%; Score 78; DB 2; Length 89;
Matches 7; Conservative 4; Mismatches 1; Indels 0; Gaps 0;

Db 69 QVCIDPKLKWQ 80
1 EICLDPKQKRWQ 12

RESULT 20
ENTRY I81182 #type complete
TITLE cytokine - mouse
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE 02-Aug-1996 #sequence_revision 02-Aug-1996 #text_change
28-Feb-1997

ACCESSIONS
REFERENCE I81182
#authors Tashiro, K.; Tada, H.; Heilker, R.; Shirozu, M.; Nakano, T.;
#journal Honjo, T.
#title Science (1993) 261:600-603
#title Signal sequence trap: a cloning strategy for secreted
#title proteins and type I membrane proteins.
#accession I81182
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-93 #label RES
#cross-references GB:L12030; NID:g393181; PID:g393182
```

GENETICS
#gene SDF-1-beta
SUMMARY #length 93 #molecular-weight 10561 #checksum 5309

Query Match 77.2%; Score 78; DB 2; Length 93;
Best Local Similarity 58.3%; Pred. No. 3,76e-04;
Matches 7; Conservative 4; Mismatches 1; Indels 0; Gaps 0;

Db 69 QVCIDPKKWKIQ 80
:::|||||
QY 1 EICLDPKOKWKQ 12

RESULT 21
ENTRY G01540 #type complete
TITLE cytokine SDF-1-beta - human
ORGANISM #formal_name Homo sapiens #common_name man
DATE 21-Dec-1996 #sequence_revision 06-Jun-1997 #text_change 17-Jul-1998

ACCESSIONS G01540
REFERENCE G07697
#authors Spotila, L.D.
#submission Submitted to the EMBL Data Library, October 1994
#accession G01540

#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-93 #label SPO
#cross-references EMBL:U16752; NID:91272194; PID:9571508
SUMMARY #length 93 #molecular-weight 10666 #checksum 6309

Query Match 77.2%; Score 78; DB 2; Length 93;
Best Local Similarity 58.3%; Pred. No. 3,76e-04;
Matches 7; Conservative 4; Mismatches 1; Indels 0; Gaps 0;

Db 69 QVCIDPKKWKIQ 80
:::|||||
QY 1 EICLDPKOKWKQ 12

RESULT 22
ENTRY I48099 #type complete
TITLE eotaxin precursor - guinea pig
ORGANISM #formal_name Cavia porcellus #common_name guinea pig
DATE 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 09-May-1997

ACCESSIONS I48099
REFERENCE I48099
#authors Rothenberg, M.E.; Luster, A.D.; Lilly, C.M.; Drazen, J.M.; Leder, P.
#journal J. Exp. Med. (1995) 181:1211-1216
#title Constitutive and allergen-induced expression of eotaxin mRNA in the guinea pig lung.
#cross-references MVID:95173589
#accession I48099

#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-96 #label RES
#cross-references EMBL:U18941; NID:9687655; PID:9687656
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 96 #molecular-weight 10753 #checksum 7236

Query Match 76.2%; Score 77; DB 2; Length 96;
Best Local Similarity 81.8%; Pred. No. 6,04e-04;
Matches 9; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Db 71 ICADPKKKWKQ 81
|||||
QY 2 ICIDPKOKWKQ 12

RESULT 23
ENTRY JC2478 #type complete
TITLE eotaxin - rat

ORGANISM
DATE #formal_name Rattus norvegicus #common_name Norway rat
21-Feb-1995 #sequence_revision 05-Apr-1995 #text_change 08-Sep-1997

ACCESSIONS JC2478
REFERENCE JC2478
#authors Jose, P.J.; Adcock, I.M.; Griffiths-Johnson, D.A.; Berkman, N.; Wells, T.N.C.; Williams, T.J.; Power, C.A.
#journal Biochem. Biophys. Res. Commun. (1994) 205:788-794
#title Eotaxin: Cloning of an eosinophil chemoattractant cytokine and increased mRNA expression in allergen-challenged guinea-pig lungs.
#accession JC2478

#molecule_type mRNA
#residues 1-96 #label JOS
#cross-references EMBL:X77603; NID:9602551; PID:9602552
COMMENT This protein is identified as a potent eosinophil chemoattractant.
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS glycoprotein
FEATURE 1-23
1-23 #domain signal sequence #status predicted #label SIG
24-96 #product eotaxin #status predicted #label MAT
93 #binding_site carbohydrate (Thr) (covalent) #status predicted

SUMMARY #length 96 #molecular-weight 10695 #checksum 7329

Query Match 76.2%; Score 77; DB 2; Length 96;
Best Local Similarity 81.8%; Pred. No. 6,04e-04;
Matches 9; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Db 71 ICADPKKKWKQ 81
|||||
QY 2 ICIDPKOKWKQ 12

RESULT 24
ENTRY I52322 #type complete
TITLE macrophage inflammatory protein-1alpha - rat
ORGANISM #formal_name Rattus norvegicus #common_name Norway rat
DATE 29-May-1998 #sequence_revision 29-May-1998 #text_change 02-Jul-1998

ACCESSIONS I52322
REFERENCE I52322
#authors Shi, M.M.; Godleski, J.J.; Pauluski, J.D.
#journal Biochem. Biophys. Res. Commun. (1995) 211:289-295
#title Molecular cloning and posttranscriptional regulation of macrophage inflammatory protein-1 alpha in alveolar macrophages.
#cross-references MVID:95298037
#accession I52322

#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-92 #label RES
#cross-references EMBL:U22414; NID:9790633; PID:9790633
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 92 #molecular-weight 10335 #checksum 3184

Query Match 75.2%; Score 76; DB 2; Length 92;
Best Local Similarity 66.7%; Pred. No. 9,69e-04;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 71 QICADPKETWKQ 82
:::|||||
QY 1 EICLDPKOKWKQ 12

RESULT 25
ENTRY JC5295 #type complete
TITLE monocyte chemoattractant protein-2 - human
ORGANISM #formal_name Homo sapiens #common_name man
DATE 31-Oct-1997 #sequence_revision 18-Jul-1997 #text_change 31-Oct-1997

ACCESSIONS JC5295
REFERENCE JC5295

RESULT 29
ENTRY A32393 #type complete
TITLE macrophage inflammatory protein-1-alpha precursor - mouse
ALTERNATE_NAMES heparin-binding chemotaxis protein; ILG2B protein;
SC1/MIP-1a; SIS alpha; stem cell inhibitor/macrophage
inflammatory protein 1-alpha; T-cell activation protein
alpha; IT5
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change
08-Sep-1997
ACCESSIONS S11685; A32393; S04533; A53885; A30552; PS0303; A27596;
I56104
REFERENCE S11685
#authors Grove, M.; Lowe, S.; Graham, G.; Pragnell, I.; Plumb, M.
#journal Nucleic Acids Res. (1990) 18:5561
#title Sequence of the murine haemopoietic stem cell
inhibitor/macrophage inflammatory protein 1-alpha gene.
#cross-references MUID:91016858
#accession S11685
#molecule_type DNA
#residues 1-92 #label GRO
#cross-references EMBL:X53372; NID:g54062; PID:g297531
#note the authors' translation of the nucleotide sequence
differs at several positions from the sequence given
REFERENCE A32393
#authors Kwon, B.S.; Weissman, S.M.
#journal Proc. Natl. Acad. Sci. U.S.A. (1989) 86:1963-1967
#title cDNA sequence of two inducible T-cell genes.
#cross-references MUID:89184547
#accession A32393
#molecule_type mRNA
#residues 1-92 #label KWO
#cross-references GB:J04491; NID:g201524; PID:g201525
REFERENCE S04533
#authors Davtelis, G.; Tekamp-Olson, P.; Wolpe, S.D.; Hermesen, K.;
Luedke, C.; Gallegos, C.; Colt, D.; Merryweather, J.;
Cerami, A.
#journal J. Exp. Med. (1988) 167:1939-1944
#title Cloning and characterization of a cDNA for murine macrophage
inflammatory protein (MIP), a novel monokine with
inflammatory and chemokinetic properties.
#cross-references MUID:88258380
#accession S04533
#molecule_type mRNA
#residues 1-48, 'E', 50-90, 'I', 92 #label DA2
#cross-references EMBL:X12531
#note the authors translated the codon GAG for residue 49 as
Asp and ATT for residue 91 as Asn
the sequence has been corrected in reference A53885
REFERENCE A53885
#authors Davtelis, G.; Tekamp-Olson, P.; Wolpe, S.D.; Hermesen, K.;
Luedke, C.; Gallegos, C.; Colt, D.; Merryweather, J.;
Cerami, A.
#journal J. Exp. Med. (1989) 170:2189
#contents estratum
#accession A53885
#molecule_type mRNA
#residues 1-92 #label DAV
#cross-references EMBL:X12531; NID:g53122; PID:g53123
REFERENCE A30552
#authors Brown, K.D.; Zurawski, S.M.; Mosmann, T.R.; Zurawski, G.
#journal J. Immunol. (1989) 142:679-687
#title A family of small inducible proteins secreted by leukocytes
and members of a new superfamily that includes leukocyte
and fibroblast-derived inflammatory agents, growth factors,
and indicators of various activation processes.
#cross-references MUID:85093958
#accession A30552
#molecule_type mRNA
#residues 1-21, 'L', 23-61, 'A', 63-92 #label BRO
#cross-references GB:M23447; NID:g533240; PID:g533241
REFERENCE J10088

#authors Sherry, B.; Tekamp-Olson, P.; Gallegos, C.; Bauer, D.;
Davtelis, G.; Wolpe, S.D.; Mastarz, F.; Colt, D.; Cerami,
A.
#journal J. Exp. Med. (1988) 168:2251-2259
#title Resolution of the two components of macrophage inflammatory
protein 1, and cloning and characterization of one of those
components, macrophage inflammatory protein 1 beta.
#cross-references MUID:85067830
#accession PS0303
#molecule_type mRNA
#residues 24-33, 'XX', 36-54 #label SHE
REFERENCE A27596
#authors Wolpe, S.D.; Davtelis, G.; Sherry, B.; Beutler, B.; Hesse,
D.G.; Nguyen, H.T.; Moldaver, L.L.; Nathan, C.F.; Lowry,
S.F.; Cerami, A.
#journal J. Exp. Med. (1988) 167:570-581
#title Macrophages secrete a novel heparin-binding protein with
inflammatory and neutrophil chemokinetic properties.
#cross-references MUID:88154745
#accession A27596
#molecule_type protein
#residues 24-33, 'XX', 36-42 #label WOL
#note 26-Met, 30-Pro, and 39-Thr were also found
REFERENCE I56104
#authors Widmer, U.; Yang, Z.; van Deventer, S.; Manogue, K.R.;
Sherry, B.; Cerami, A.
#journal J. Immunol. (1991) 146:4031-4040
#title Genomic structure of murine macrophage inflammatory
protein-1-alpha and conservation of potential regulatory
sequences with a human homolog, LD78.
#cross-references MUID:91237116
#accession I56104
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type DNA
#residues 1-92 #label RES
#cross-references GB:M73061; NID:g199694; PID:g199695
COMMENT This protein is a monokine.
GENETICS
#introns 23/3; 26/1; 63/2
CLASSIFICATION #superfamily macrophage inflammatory protein
FEATURES
#domain signal sequence #status predicted #label SIG
#product macrophage inflammatory protein #status
experimental #label MAT
#length 92 #molecular_weight 10345 #checksum 5009
SUMMARY
Query Match 68.3%; Score 69; DB 2; Length 92;
Best Local Similarity 58.3%; Pred. No. 2,44e-02;
Matches 7; Conservative 3; Mismatches 2; Gaps 0;
DB 71 QICADSKETWQ 82
QY 1 EICDPRKRWQ 12
RESULT 30
ENTRY S07723 #type complete
TITLE immediate-early serum-responsive protein JE - rat
ALTERNATE_NAMES monocyte chemoattractant protein-1
ORGANISM #formal_name Rattus norvegicus #common_name Norway rat
DATE 29-Jan-1993 #sequence_revision 29-Jan-1993 #text_change
08-Sep-1997
ACCESSIONS S07723; JN0128
REFERENCE S07723
#authors Timmers, H.T.M.; Pronk, G.J.; Bos, J.L.; van der Eb, A.J.
#journal Nucleic Acids Res. (1990) 18:23-34
#title Analysis of the rat JE gene promoter identifies an AP-1
binding site essential for basal expression but not for TPA
induction.
#cross-references MUID:90174947
#accession S07723
#molecule_type DNA

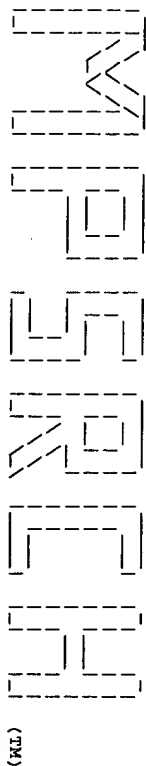
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##residues 1-148 #label TIM
##cross-references EMBL:X17053; NID:g55530; PID:g55531
REFERENCE JN0128
#authors Yoshimura, T.; Takeya, M.; Takahashi, K.
#journal Biochem. Biophys. Res. Commun. (1991) 174:504-509
#title Molecular cloning of rat monocyte chemoattractant protein-1
(MCP-1) and its expression in rat spleen cells and tumor
cell lines
#cross-references MUID:91128376
#accession JN0128
#molecule_type mRNA
##residues 1-148 #label YOS
##cross-references GB:M57441; NID:g205333; PID:g205334
#experimental_source spleen cells
##note the authors translated the codon GAA for residue 62 as
Lys and GCT for residue 63 as Leu

GENETICS
#introns 26/1; 65/2
CLASSIFICATION #superfamily macrophage inflammatory protein
FEATURE
1-23 #domain signal sequence #status predicted #label SIG\
24-148 #product immediate-early serum-responsive protein JE
#status predicted #label MAT
SUMMARY #length 148 #molecular-weight 16460 #checksum 4876

Query Match 68.3%; Score 69; DB 2; Length 148;
Best Local Similarity 66.7%; Pred. No. 2.44e-02;
Matches 8; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

Db 73 EICADPNKRWVQ 84
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||| ||| |||
QY 1 EICADPNKRWVQ 12

Search completed: Thu Apr 1 07:35:21 1999
Job time : 17 secs.
```



(TM)

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Mpsrch_pp protein - protein database search, using Smith-Waterman algorithm
Run on: Thu Apr 1 07:33:48 1999; Mspair time 2.31 Seconds
Tabular output not generated. 139,448 Million cell updates/sec

Title: >US-08-927-939-10
Description: (1-12) from US08927939.pep
Perfect Score: 101
Sequence: 1 EICLDPKQKWWQ 12

Scoring table:
PAM 150
Gap 15

Searched: 74019 segs, 26840295 residues

Post-processing: Minimum Match 0%
Listing first 100 summaries

Database: swiss-prot36
1:swissprot

Statistics: Mean 26.088; Variance 33.350; scale 0.782

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description	Pred. No.
1	95	94.1	101	1	IL8_SHEEP	2.66e-09
2	95	94.1	101	1	IL8_CANFA	2.66e-09
3	95	94.1	103	1	IL8_PIG	2.66e-09
4	92	91.1	101	1	IL8_BOVIN	1.51e-08
5	92	91.1	101	1	IL8_RABIT	1.51e-08
6	90	89.1	99	1	MCPI_HUMAN	4.74e-08
7	90	89.1	101	1	MCPI_CANFA	4.74e-08
8	87	86.1	99	1	MCPI_BOVIN	8.37e-07
9	87	86.1	99	1	MCPI_PIG	2.60e-07
10	86	85.1	98	1	MCPI_HUMAN	4.55e-07
11	86	85.1	99	1	IL8_HUMAN	4.55e-07
12	86	85.1	101	1	IL8_CANFA	4.55e-07
13	85	84.2	99	1	MCPI_BOVIN	1.39e-06
14	84	83.2	125	1	MCPI_RABIT	7.97e-07
15	83	82.2	97	1	EOTA_MOUSE	2.42e-06
16	83	82.2	97	1	EOTA_MOUSE	2.42e-06
17	83	82.2	99	1	MCPI_HUMAN	2.42e-06
18	82	81.2	97	1	EOTA_MOUSE	2.42e-06
19	82	81.2	101	1	IL8_HUMAN	4.21e-06
20	82	81.2	101	1	IL8_CANFA	4.21e-06
21	81	80.2	99	1	MCPI_BOVIN	7.29e-06
22	81	80.2	120	1	MCPI_CANFA	7.29e-06
23	79	78.2	104	1	MCPI_MOUSE	2.17e-05

24	78	77.2	89	1	SDP1_MOUSE	3.72e-05
25	78	77.2	93	1	SDP1_HUMAN	3.72e-05
26	77	76.2	96	1	EOTA_CANFA	6.37e-05
27	76	75.2	92	1	MIL4_RAT	1.09e-04
28	75	74.3	74	1	MCPI_BOVIN	1.85e-04
29	75	74.3	99	1	MCPI_HUMAN	1.85e-04
30	74	73.3	89	1	MIP4_HUMAN	3.14e-04
31	74	73.3	103	1	EMR1_CHICK	3.14e-04
32	73	72.3	148	1	MCPI_MOUSE	5.30e-04
33	69	68.3	92	1	MIL4_MOUSE	4.17e-03
34	69	68.3	148	1	MCPI_MOUSE	4.17e-03
35	68	67.3	97	1	MCPI_MOUSE	6.92e-03
36	67	66.3	91	1	SID_MOUSE	1.14e-02
37	67	66.3	92	1	SID_MOUSE	1.14e-02
38	65	64.4	92	1	MIL4_HUMAN	3.09e-02
39	65	64.4	92	1	MIL4_HUMAN	3.09e-02
40	65	64.4	93	1	CCCL_HUMAN	3.09e-02
41	65	64.4	93	1	CCCL_HUMAN	3.09e-02
42	65	64.4	96	1	MIL4_HUMAN	3.09e-02
43	65	64.4	109	1	CCC3_HUMAN	3.09e-02
44	62	61.4	90	1	MIL4_CHICK	1.33e-01
45	62	61.4	92	1	MIL4_RABIT	1.33e-01
46	62	61.4	114	1	LTN_RAT	1.33e-01
47	61	60.4	50	1	SID_PIG	2.14e-01
48	61	60.4	85	1	KOC2_ECOLI	2.14e-01
49	61	60.4	91	1	SID_HUMAN	2.14e-01
50	61	60.4	91	1	SID_CANFA	2.14e-01
51	61	60.4	114	1	LTN_MOUSE	2.14e-01
52	59	58.4	176	1	YGPD_ECOLI	5.46e-01
53	58	57.4	92	1	MIL4_RAT	8.67e-01
54	57	56.4	201	1	RETB_RAT	1.37e+00
55	56	55.4	284	1	DRN1_RAT	2.15e+00
56	56	55.4	770	1	STA3_HUMAN	2.15e+00
57	56	55.4	770	1	STA3_RAT	2.15e+00
58	56	55.4	770	1	STA3_MOUSE	2.15e+00
59	56	55.4	2875	1	RRPL_TSWI	2.15e+00
60	55	54.5	92	1	MIL4_MOUSE	3.35e+00
61	55	54.5	915	1	PAC6_RAT	3.35e+00
62	55	54.5	915	1	PAC6_MOUSE	3.35e+00
63	54	53.5	114	1	LTN_HUMAN	5.20e+00
64	54	53.5	450	1	DHE4_LACBI	5.20e+00
65	54	53.5	460	1	YAS4_HAIEIN	5.20e+00
66	54	53.5	606	1	RP3A_HAIEIN	5.20e+00
67	54	53.5	684	1	RP3A_RAT	5.20e+00
68	53	52.5	117	1	Y3PK_YEAST	8.03e+00
69	53	52.5	117	1	AMC2_PIG	8.03e+00
70	53	52.5	140	1	VHM3_CANFA	8.03e+00
71	53	52.5	148	1	YPOL_IPNVJ	8.03e+00
72	53	52.5	196	1	YGPD_HAIEIN	8.03e+00
73	53	52.5	227	1	VNS1_JAMYN	8.03e+00
74	53	52.5	262	1	DRN1_PIG	8.03e+00
75	53	52.5	916	1	RTK1_DROFU	8.03e+00
76	53	52.5	1827	1	SUTS_HUMAN	8.03e+00
77	52	51.5	98	1	MIL4_HUMAN	1.23e+01
78	52	51.5	116	1	C10_MOUSE	1.23e+01
79	52	51.5	260	1	DRN1_BOVIN	1.23e+01
80	52	51.5	260	1	DRN1_SHEEP	1.23e+01
81	52	51.5	360	1	BOIA_HUMAN	1.23e+01
82	52	51.5	599	1	YAS4_MOUSE	1.23e+01
83	52	51.5	694	1	PNKL_NPVAC	1.23e+01
84	52	51.5	871	1	PC1_MOUSE	1.23e+01
85	52	51.5	873	1	PC1_HUMAN	1.23e+01
86	51	50.5	156	1	UBCO_YEAST	1.87e+01
87	51	50.5	408	1	RECO_ECOLI	1.87e+01
88	51	50.5	448	1	GUN_CLOAB	1.87e+01
89	51	50.5	456	1	YD45_SCHPO	1.87e+01
90	51	50.5	506	1	CP44_RABIT	1.87e+01
91	51	50.5	506	1	VIL1_BPV4	1.87e+01
92	51	50.5	619	1	RECO_HAIEIN	1.87e+01
93	51	50.5	650	1	VEI_HPV73	1.87e+01
94	50	49.5	244	1	RIB7_YEAST	2.84e+01
95	50	49.5	356	1	Y523_HAIEIN	2.84e+01
96	50	49.5	410	1	ICP0_PRRIV	2.84e+01

97 50 49.5 467 1 VG38 YEAST HYPOTHETICAL 54.5 KD P 2.84e+01
 98 50 49.5 485 1 1A12_LYCERS 1-AMINOCYCLOPROPANE-1- 2.84e+01
 99 50 49.5 536 1 NUMB_DROME NUMB PROTEIN. 2.84e+01
 100 50 49.5 1128 1 MEMB_RAT MEMBRANE-ASSOCIATED PR 2.84e+01

ALIGNMENTS

RESULT 1
 ID IL8_SHEEP STANDARD; PRT; 101 AA.
 AC P36925;
 DT 01-JUN-1994 (REL. 29, LAST SEQUENCE UPDATE)
 DT 01-JUN-1994 (REL. 32, LAST SEQUENCE UPDATE)
 DE INTERLEUKIN-8 PRECURSOR (IL-8).
 GN IL8.
 OS OVIS ARIES (SHEEP).
 OC EURAROTIA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; ARTIODACTYLA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 95121931.
 RA LEGASTELOIS I., GREENLAND T., ARNAUD P., MORNEX J.F., CORDIER G.;
 RL GENE 150:367-369(1994).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 95137691.
 RA SHOW H.F., YOSHIMURA T., WOOD P.R., COLDITZ I.G.;
 RL IMMUNOL. CELL BIOL. 72:398-405(1994).
 CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
 BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
 CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
 CC RESPONSE TO AN INFLAMMATORY STIMULUS.
 CC -1- SUBUNIT: HOMODIMER.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
 C-X-C) (CHEMOKINE CXC).
 DR EMBL; X78306; G463254; -;
 DR EMBL; S74436; G786591; -;
 DR PTR; S42496; S42496.
 DR HSSP; P10145; 31L8.
 DR PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
 KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
 FT SIGNAL 1 22 BY SIMILARITY.
 FT CHAIN 23 101 INTERLEUKIN-8.
 FT DISULFID 34 61 BY SIMILARITY.
 FT DISULFID 36 77 BY SIMILARITY.
 SQ SEQUENCE 101 AA; 11292 MW; 5A574527 CRC32;
 Query Match 94.1%; Score 95; DB 1; Length 101;
 Best Local Similarity 83.3%; Pred. No. 2,66e-09;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
 Db 75 EVLDPREKXWQ 86
 QY 1 EICLDPKXWQ 12
 RESULT 2
 ID IL8_CANFA STANDARD; PRT; 101 AA.
 AC P41324;
 DT 01-FEB-1995 (REL. 31, CREATED)
 DT 01-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE)
 DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
 DE INTERLEUKIN-8 PRECURSOR (IL-8).
 GN IL8.
 OS CANIS FAMILIARIS (DOG).
 OC EURAROTIA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; CARNIVORA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 94010328.
 RA ISHIKAWA J., SUZUKI S., HOTTA K., HIROTA Y., MIZUNO S., SUZUKI K.;
 RL GENE 131:305-306(1993).

RN [2]
 RP SEQUENCE FROM N.A.
 RC TISSUE-LYMPH NODE;
 RX MEDLINE; 95127913.
 RA MATSUMOTO Y., MOHAMED A., ONODERA T., KATO H., OHASHI T.,
 RA GOITSUKA R., TSUJIMOTO H., HASEGAWA A., FURUSAWA S., YOSHITARA K.,
 RA ISHIKAWA J., HOTTA K., SUZUKI K., HIROTA Y.;
 RL CYTOKINE 6:455-461(1994).
 RN [3]
 RP SEQUENCE FROM N.A.
 RC STRAIN-MONGREL; TISSUE-JUGULAR VEIN;
 RX MEDLINE; 95114148.
 RA KIKIETKA G.L., SMITH W.C., TAROSA G.J., MANNING A.M.,
 RA MENDOZA L.H., DALY T.J., HUGHES B.U., YOKER K.A., HAWKINS H.K.,
 RA MICHAEL L.H., ROT A., ENTMAN M.L.;
 RL J. CLIN. INVEST. 95:89-103(1994).
 CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
 BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
 CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
 CC RESPONSE TO AN INFLAMMATORY STIMULUS.
 CC -1- SUBUNIT: HOMODIMER.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
 C-X-C) (CHEMOKINE CXC).
 DR EMBL; D28772; G517100; -;
 DR EMBL; D14285; G475152; -;
 DR EMBL; U10308; G607814; -;
 DR PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
 KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
 FT SIGNAL 1 22 BY SIMILARITY.
 FT CHAIN 23 101 INTERLEUKIN-8.
 FT DISULFID 34 61 BY SIMILARITY.
 FT DISULFID 36 77 BY SIMILARITY.
 SQ SEQUENCE 101 AA; 11280 MW; 7C49D62D CRC32;
 Query Match 94.1%; Score 95; DB 1; Length 101;
 Best Local Similarity 83.3%; Pred. No. 2,66e-09;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
 Db 75 EVLDPREKXWQ 86
 QY 1 EICLDPKXWQ 12
 RESULT 3
 ID IL8_PIG STANDARD; PRT; 103 AA.
 AC P26894; P22951;
 DT 01-AUG-1991 (REL. 19, CREATED)
 DT 01-AUG-1992 (REL. 23, LAST SEQUENCE UPDATE)
 DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
 DE INTERLEUKIN-8 PRECURSOR (IL-8) (ALVEOLAR MACROPHAGE CHEMOTACTIC FACTOR
 DE I) (AMCF-I).
 GN IL8.
 OS SUS SCROFA (PIG).
 OC EURAROTIA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; ARTIODACTYLA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 94103307.
 RA LIN G., PEARSON A.E., SCAMURRA R.W., ZHOU Y., BAARSCH M.J.,
 RA WEISS D.J., MURTAUGH M.P.;
 RL J. BIOL. CHEM. 269:77-85(1994).
 RN [2]
 RP SEQUENCE FROM N.A.
 RA SANJAWALA M.;
 RL SUBMITTED (JUL-1991) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [3]
 RP SEQUENCE FROM N.A., AND SEQUENCE OF 26-45.
 RC TISSUE-LUNG;
 RX MEDLINE; 93041741.
 RA GOODMAN R.B., FOSTER D.C., MATHEWS S.L., OSBORN S.G., KUIPERS J.L.,
 RA FORSTROM J.W., MARTIN T.R.;
 RL BIOCHEMISTRY 31:10483-10490(1992).
 RN [4]

RP REVISION TO 23.
 RA GOODMAN R.B.:
 RL SUBMITTED (MAR-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [5]
 RC SEQUENCE OF 26-45.
 RP STRAIN-YORKSHIRE:
 RX MEDLINE: 91217086.
 RA GOODMAN R.B., FORSTROM J.W., OSBORN S.G., CHI E.Y., MARTIN T.R.:
 RL J. BIOL. CHEM. 266:8455-8463(1991).
 CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
 CC BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
 CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
 CC RESPONSE TO AN INFLAMMATORY STIMULUS.
 CC -1- SUBUNIT: HOMODIMER.
 CC -1- TISSUE SPECIFICITY: ALVEOLAR MACROPHAGES.
 CC -1- INDUCTION: BY LIPOLYSACCHARIDE.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
 CC C-X-C) (CHEMOKINE CXCL).
 CC EMBL: M86923; G164521; -.
 DR EMBL: X61151; G516187; -.
 DR EMBL: M99367; G1235612; -.
 DR PIR: A44253; A44253.
 DR PIR: A39819; A39819.
 DR HSSP: P10145; 3118.
 DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; 1.
 KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
 RN SIGNAL 1 25
 FT CHAIN 26 103
 FT DISULFID 34 61 INTERLEUKIN-8.
 FT DISULFID 36 77 BY SIMILARITY.
 FT CONFLICT 33 34 BY SIMILARITY.
 FT CONFLICT 87 87 RC -> CR (IN REF. 5).
 FT CONFLICT 87 87 K -> KR (IN REF. 2).
 SQ SEQUENCE 103 AA; 11633 MW; A012D59D CRC32;
 Query Match 94.1%; Score 95; DB 1; Length 103;
 Best Local Similarity 83.3%; Pred. No. 2.66e-09;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
 Db 75 EYCLDPKREKWO 86
 QY 1 EYCLDPKREKWO 12
 RESULT 4
 ID IL8_BOVIN STANDARD; PRT; 101 AA.
 AC P79255;
 DT 01-NOV-1997 (REL. 35, CREATED)
 DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
 DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
 DE INTERLEUKIN-8 PRECURSOR (IL-8).
 GN IL8.
 OS BOS TAURUS (BOVINE).
 CC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUTHERIA; ARTIODACTYLA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 96304552.
 RA MORSEY M.A., POWOWYCH Y., KOWALSKI J., GERLACH G., GODSON D.,
 RA CAMPOS M., BABIUK L.A.:
 RL MICROR. PATHOG. 20:203-212(1996).
 CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
 CC BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
 CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
 CC RESPONSE TO AN INFLAMMATORY STIMULUS (BY SIMILARITY).
 CC -1- SUBUNIT: HOMODIMER (BY SIMILARITY).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
 CC C-X-C) (CHEMOKINE CXCL).
 CC EMBL: S82598; G169354; -.
 DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; 1.
 KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
 RN SIGNAL 1 22
 FT CHAIN 23 101
 FT DISULFID 34 61 BY SIMILARITY.
 FT DISULFID 36 77 BY SIMILARITY.
 FT CONFLICT 50 50 K -> I (IN REF. 2).
 SQ SEQUENCE 101 AA; 11402 MW; CB32CC30 CRC32;
 Query Match 91.1%; Score 92; DB 1; Length 101;
 Best Local Similarity 83.3%; Pred. No. 1.51e-08;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
 Db 75 EYCLDPKREKWO 86
 QY 1 EYCLDPKREKWO 12
 RESULT 5
 ID IL8_RABBIT STANDARD; PRT; 101 AA.
 AC P19874;
 DT 01-FEB-1991 (REL. 17, CREATED)
 DT 01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
 DT 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
 DE INTERLEUKIN-8 PRECURSOR (IL-8) (NEUTROPHIL ATTRACTANT/ACTIVATION
 DE PROTEIN-1) (NAP-1) (PERMEABILITY FACTOR 1) (RPF1).
 GN IL8.
 OS ORYCTOLAGUS CUNICULUS (RABBIT).
 CC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUTHERIA; LAGOMORPHA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX STRAIN-NEW ZEALAND WHITE; TISSUE-SPLEEN;
 RX MEDLINE: 91225489.
 RA YOSHIMURA T., YUKHI N.;
 RL J. IMMUNOL. 146:3483-3488(1991).
 RN [2]
 RP SEQUENCE OF 23-53.
 RC STRAIN-NEW ZEALAND WHITE; TISSUE-PERITONEAL CAVITY;
 RX MEDLINE: 91058518.
 RA BEAUBIEN B.C., COLLINS P.D., JOSE P.J., TOTTY N.F., HSUAN J.,
 RA WATERFIELD M.D., WILLIAMS T.J.:
 RL BIOCHEM. J. 271:797-801(1990).
 CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
 CC BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
 CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
 CC RESPONSE TO AN INFLAMMATORY STIMULUS.
 CC -1- SUBUNIT: HOMODIMER.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
 CC C-X-C) (CHEMOKINE CXCL).
 CC EMBL: M57439; G165553; -.
 DR PIR: S13052; S13052.
 DR HSSP: P10145; 3118.
 DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; 1.
 KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
 RN SIGNAL 1 22
 FT CHAIN 23 101
 FT DISULFID 34 61 INTERLEUKIN-8.
 FT DISULFID 36 77 BY SIMILARITY.
 FT CONFLICT 50 50 BY SIMILARITY.
 SQ SEQUENCE 101 AA; 11402 MW; CB32CC30 CRC32;
 Query Match 91.1%; Score 92; DB 1; Length 101;
 Best Local Similarity 83.3%; Pred. No. 1.51e-08;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
 Db 75 EYCLDPKREKWO 86
 QY 1 EYCLDPKREKWO 12
 RESULT 6
 ID MCP1_HUMAN STANDARD; PRT; 99 AA.
 AC P13500;
 DT 01-JAN-1990 (REL. 13, CREATED)
 DT 01-JAN-1990 (REL. 13, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE CHEMOTACTIC
 DE AND ACTIVATING FACTOR) (MCAF) (MONOCYTE SECRETORY PROTEIN JE)

FT DISULFID 36 77 BY SIMILARITY.
 SQ SEQUENCE 101 AA; 11291 MW; 0B39C526 CRC32;
 Query Match 91.1%; Score 92; DB 1; Length 101;
 Best Local Similarity 75.0%; Pred. No. 1.51e-08;
 Matches 9; Conservative 3; Mismatches 0; Indels 0; Gaps 0;
 Db 75 EYCLDPKREKWO 86
 QY 1 EYCLDPKREKWO 12
 RESULT 5
 ID IL8_RABBIT STANDARD; PRT; 101 AA.
 AC P19874;
 DT 01-FEB-1991 (REL. 17, CREATED)
 DT 01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
 DT 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
 DE INTERLEUKIN-8 PRECURSOR (IL-8) (NEUTROPHIL ATTRACTANT/ACTIVATION
 DE PROTEIN-1) (NAP-1) (PERMEABILITY FACTOR 1) (RPF1).
 GN IL8.
 OS ORYCTOLAGUS CUNICULUS (RABBIT).
 CC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUTHERIA; LAGOMORPHA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX STRAIN-NEW ZEALAND WHITE; TISSUE-SPLEEN;
 RX MEDLINE: 91225489.
 RA YOSHIMURA T., YUKHI N.;
 RL J. IMMUNOL. 146:3483-3488(1991).
 RN [2]
 RP SEQUENCE OF 23-53.
 RC STRAIN-NEW ZEALAND WHITE; TISSUE-PERITONEAL CAVITY;
 RX MEDLINE: 91058518.
 RA BEAUBIEN B.C., COLLINS P.D., JOSE P.J., TOTTY N.F., HSUAN J.,
 RA WATERFIELD M.D., WILLIAMS T.J.:
 RL BIOCHEM. J. 271:797-801(1990).
 CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
 CC BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
 CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
 CC RESPONSE TO AN INFLAMMATORY STIMULUS.
 CC -1- SUBUNIT: HOMODIMER.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
 CC C-X-C) (CHEMOKINE CXCL).
 CC EMBL: M57439; G165553; -.
 DR PIR: S13052; S13052.
 DR HSSP: P10145; 3118.
 DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; 1.
 KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
 RN SIGNAL 1 22
 FT CHAIN 23 101
 FT DISULFID 34 61 INTERLEUKIN-8.
 FT DISULFID 36 77 BY SIMILARITY.
 FT CONFLICT 50 50 BY SIMILARITY.
 SQ SEQUENCE 101 AA; 11402 MW; CB32CC30 CRC32;
 Query Match 91.1%; Score 92; DB 1; Length 101;
 Best Local Similarity 83.3%; Pred. No. 1.51e-08;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
 Db 75 EYCLDPKREKWO 86
 QY 1 EYCLDPKREKWO 12
 RESULT 6
 ID MCP1_HUMAN STANDARD; PRT; 99 AA.
 AC P13500;
 DT 01-JAN-1990 (REL. 13, CREATED)
 DT 01-JAN-1990 (REL. 13, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE CHEMOTACTIC
 DE AND ACTIVATING FACTOR) (MCAF) (MONOCYTE SECRETORY PROTEIN JE)

(MONOCYTE CHEMOTACTANT PROTEIN 1) (HC11) (SMALL INDUCIBLE CYTOKINE
 A2)
 SCYA2 OR MCP1.
 OS HOMO SAPIENS (HUMAN).
 CC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUTHERIA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 89153605.
 RA FORUANI Y., NOMURA H., NOTAKE M., OYAMADA Y., FUKUI T., YAMADA M.,
 RA IARSEN C.G., OPENHEIM J.J., MATSUSHIMA K.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 159:249-255(1989).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 90097880.
 RA ROLLINS B.J., STIER P., ERNST T., WONG G.G.;
 RL MOL. CELL. BIOL. 9:4687-4695(1989).
 RN [3]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 89153605.
 RA YOSHIMURA T., YUHKI N., MOORE S.K., APPELLA E., LERMAN M.I.,
 RA LEONARD E.J.;
 RL FEBS LETT. 244:487-493(1989).
 RN [4]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 90290466.
 RA SHYX Y.J., LI Y.S., KOLATUKUDY P.E.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 169:346-351(1990).
 RN [5]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 91207938.
 RA CHANG H.C., HSU F., FREEMAN G.J., GRIFFIN J.D., REINHERZ E.L.;
 RL INT. IMMUNOL. 1:388-399(1989).
 RN [6]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 94150478.
 RA LI Y.S., SHYX Y.J., WRIGHT J.G., VALENTE A.J., CORNHILL J.F.,
 RA KOLATUKUDY P.E.;
 RL MOL. CELL. BIOCHEM. 126:61-68(1993).
 RN [7]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 92095166.
 RA YOSHIMURA T., LEONARD E.J.;
 RL ADV. EXP. MED. BIOL. 305:47-56(1991).
 RN [8]
 RP SEQUENCE OF 24-99.
 RX MEDLINE; 89184525.
 RA ROBINSON E.A., YOSHIMURA T., LEONARD E.J., TANAKA S., GRIFFIN P.R.,
 RA SHABANOWITZ J., HUNT D.F., APPELLA E.;
 RL PROC. NATL. ACADE. SCI. U.S.A. 86:1850-1854(1989).
 RN [9]
 RP SEQUENCE OF 29-53 AND 82-92.
 RX MEDLINE; 90211336.
 RA DECOCK B., CONINGS R., LENAERTS J.-P., BILAU A., VAN DAMME J.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 167:904-909(1990).
 RN [10]
 RP 3D-STRUCTURE MODELLING.
 RX MEDLINE; 91312872.
 RA GRONENBORN A.M., CLORE G.M.;
 RL PROTEIN ENG. 4:263-269(1991).
 RN [11]
 RP X-RAY CRYSTALLOGRAPHY (1.85 ANGSTROMS).
 RX MEDLINE; 97143315.
 RA LUBKOWSKI J., BUJACZ G., DOMAILLE P.J., HANDEL T.M., WLODANER A.;
 RL NAT. STRUCT. BIOL. 4:64-69(1997).
 RN [12]
 RP STRUCTURE BY NMR.
 RX MEDLINE; 96234959.
 RA HANDEL T.M., DOMAILLE P.J.;
 RL BIOCHEMISTRY 35:6569-6584(1996).
 RN [13]
 RP EFFECT OF DELETION OF N-TERMINAL RESIDUES.
 RX MEDLINE; 96195223.

RA WEBER M., UGUCCIONI M., BAGGIOLINI M., CLARK-LEWIS I., DAHINDEN C.A.;
 RL J. EXP. MED. 183:681-685(1996).
 RN [14]
 RP MUTAGENESIS.
 RX MEDLINE; 94253189.
 RA ZHANG Y.J., RUTLEDGE B.J., ROLLINS B.J.;
 RL J. BIOL. CHEM. 269:15918-15924(1994).
 RN [15]
 RP SUBUNIT.
 RX MEDLINE; 97053697.
 RA KIM K.-S., RAJARATHNAM K., CLARK-LEWIS I., SYKES B.D.;
 RL FEBS LETT. 395:277-282(1996).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND BASOPHILS
 CC BUT NOT NEUTROPHILS OR EOSINOPHILS. AUGMENTS MONOCYTE ANTI-TUMOR
 CC ACTIVITY. HAS BEEN IMPLICATED IN THE PATHOGENESIS OF DISEASES
 CC CHARACTERIZED BY MONOCYTIC INFILTRATES, LIKE PSORIASIS, RHEUMATOID
 CC ARTHRITIS OR ATHEROSCLEROSIS. MAY BE INVOLVED IN THE RECRUITMENT
 CC OF MONOCYTES INTO THE ARTERIAL WALL DURING THE DISEASE PROCESS OF
 CC ATHEROSCLEROSIS.
 CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM.
 CC -1- PTM: PROCESSING AT THE N-TERMINUS CAN REGULATE RECEPTOR AND TARGET
 CC CELL SELECTIVITY. DELETION OF THE AMINO-TERMINAL RESIDUE CONVERTS
 CC IT FROM AN ACTIVATOR OF BASOPHIL TO AN EOSINOPHIL CHEMOTACTANT.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL; M31625; G386961; -;
 DR EMBL; M30816; G386961; JOINED.
 DR EMBL; M31625; G386961; JOINED.
 DR EMBL; M24545; G307163; -;
 DR EMBL; M28226; G338009; -;
 DR EMBL; X14768; G34514; -;
 DR EMBL; M37719; G487124; -;
 DR EMBL; M28225; G338007; -;
 DR EMBL; M28223; G338007; JOINED.
 DR EMBL; M28224; G338007; JOINED.
 DR EMBL; S69738; G545465; -;
 DR EMBL; S71513; G240868; -;
 DR EMBL; A17786; G641145; -;
 DR PIR; A35474; A35474.
 DR PIR; S03339; S03339.
 DR PDB; 1DOK; 12-MAR-97.
 DR PDB; 1DOL; 12-MAR-97.
 DR PDB; 1DOM; 14-OCT-96.
 DR PDB; 1DON; 14-OCT-96.
 DR PDB; 1MCA; 15-OCT-94.
 DR MIM; 158105; -;
 DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; 3D-STRUCTURE.
 FT STGNL 1 23
 FT CHAIN 24 99
 FT MOD_RES 24 24
 FT DISULFID 34 59
 FT CARBOHYD 35 75
 FT VARIANT 76 76
 FT MUTAGEN 24 24
 FT MUTAGEN 25 32
 FT MUTAGEN 24 85
 FT MUTAGEN 24 91
 FT MUTAGEN 26 26
 FT MUTAGEN 29 29
 FT MUTAGEN 47 47
 FT MUTAGEN 50 50
 FT MUTAGEN 51 51
 FT MUTAGEN 53 53
 FT MUTAGEN 91 91
 SO SEQUENCE 99 AA; 11025 MM; 53558695 CRC32;
 Query Match 89.18; Score 90; DB 1; Length 99;
 Best Local Similarity 91.78; Pred. No. 4; 74e-08;
 Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 73 EICADPRQKRWQ 84

ID MCP4 HUMAN STANDARD: PRT: 98 AA.
 AC Q99616; 15-JUL-1998 (REL. 36, CREATED)
 DT 15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 4 PRECURSOR (MCP-4) (MONOCYTE
 DE CHEMOTACTIC PROTEIN 4) (CK-BEPA10) (NCC-1).
 GN SCY13 OR MCP4 OR NCCL.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 RN [1]
 RN EUKARYOTA; PRIMATES.
 RC SEQUENCE FROM N.A.
 RC TISSUE-HEART.
 RA MEDLINE: 97113354.
 RA GARCIA-ZEEDA E.A., COMBADIERE C., ROTHENBERG M.E., SARAFI M.N.,
 RA LAVIGNE F., HAMID O., MURPHY P.M., LUSTER A.D.;
 RA J. IMMUNOL. 157:5613-5626(1996).
 RL [2]
 RL SEQUENCE FROM N.A., AND SEQUENCE OF 17-98.
 RC TISSUE-FETAL.
 RC MEDLINE: 96235049.
 RA UGCCIONI M., LOETSCHER P., FORSSMANN U., DEMALD B., LI H., LIMA S.H.,
 RA LI Y., KREIDER B., GAROTTA G., THELEN M., BAGGIOLINI M.;
 RA J. EXP. MED. 183:2379-2384(1996).
 RL [3]
 RL SEQUENCE FROM N.A., AND SEQUENCE OF 22-33.
 RC TISSUE-FETAL.
 RC MEDLINE: 97341179.
 RA BERKHOUT T.A., SARAU H.M., MOORES K., WHITE J.R., ELSHOUBAGY N.,
 RA APPELBAUM E., REAPE T.J., BRAUNER M., MAKIWA J., FOLEY J.J.,
 RA SCHMIDT D.B., IMBURGIA C., MACNULTY D., MATTHEWS J., O'DONNELL K.,
 RA O'SHANNESY D., SCOTT M., GROOT P.H.E., MACPHEE C.;
 RA J. BIOL. CHEM. 272:16404-16413(1997).
 RL [4]
 RL SEQUENCE FROM N.A.
 RA DANTE M., GIBSON A.;
 RL SUBMITTED (AUG-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, LYMPHOCYTES,
 CC BASOPHILS AND EOSINOPHILS, BUT NOT NEUTROPHILS. SIGNALS THROUGH
 CC CCR2B AND CCR3 RECEPTORS. PLAYS A ROLE IN THE ACCUMULATION OF
 CC LEUKOCYTES AT BOTH SIDES OF ALLERGIC AND NONALLERGIC INFLAMMATION.
 CC MAY BE INVOLVED IN THE RECRUITMENT OF MONOCYTES INTO THE ARTERIAL
 CC WALL DURING THE DISEASE PROCESS OF ARTERIOSCLEROSIS. MAY PLAY A
 CC ROLE IN THE MONOCYTE ATTRACTION IN TISSUES CHRONICALLY EXPOSED TO
 CC EXOGENOUS PATHOGENS.
 CC -1- MASS SPECTROMETRY: MW-9314; MW-ERR-30; METHOD-WALDI; RANGE-17-98.
 CC -1- MASS SPECTROMETRY: MW-8760; MW-ERR-30; METHOD-WALDI; RANGE-22-98.
 CC -1- MASS SPECTROMETRY: MW-8575; MW-ERR-30; METHOD-WALDI; RANGE-24-98.
 CC -1- INDUCTION: BY INTERLEUKIN-1 AND TNF-ALPHA.
 CC -1- TISSUE SPECIFICITY: WIDELY EXPRESSED. FOUND IN SMALL INTESTINE,
 CC THYMUS, COLON, LUNG, TRACHEA, STOMACH AND LYMPH NODE. LOW LEVELS
 CC SEEN IN THE PULMONARY ARTERY SMOOTH MUSCLE CELLS.
 CC -1- THIS PROTEIN CAN BIND HEPARIN.
 CC -1- PFM: ONE MAJOR ISOFORM MCP-4, AND TWO MINOR ISOFORMS (LA)MCP-4 AND
 CC (FM)GALMCP-4 ARE PRODUCED BY DIFFERENTIAL SIGNAL CLEAVAGE.
 CC (LA)MCP-4 IS ABOUT 30 FOLD LESS ACTIVE THAN MCP-4.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 CC EMBL: U46767; G1732123; -.
 DR EMBL: AC002482; G2340091; -.
 DR MIM: 601391; -.
 DR PROSITE: PS00472; SMALL CYTOKINES.CC: 1.
 KM CYTOKINE; CHEMOTAXIS; SIGNAL; GLYCOPROTEIN; INFLAMMATORY RESPONSE.
 FT SIGNAL 1 23
 FT CHAIN 1 98
 FT MOD_RES 24 24 MONOCYTE CHEMOTACTIC PROTEIN 4.
 FT DISULFD 34 58 PYRROLIDONE CARBOXYLIC ACID.
 FT DISULFD 35 74 BY SIMILARITY.
 FT CARBOHD 29 29 BY SIMILARITY.
 FT SEQUENCE 98 AA: 10986 MW: DF52F6EC CRC32;
 Query Match 85.1%; Score 86; DB 1; Length 98;

Best Local Similarity 83.3%; Pred. No. 4.55e-07;
 Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
 Db 72 EICADPKREKVVQ 83
 Oy 1 EICADPKRKVVQ 12
 RESULT 11
 ID IL8 HUMAN STANDARD: PRT: 99 AA.
 AC P10145;
 DT 01-MAR-1989 (REL. 10, CREATED)
 DT 01-MAR-1989 (REL. 10, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE INTERLEUKIN-8 PRECURSOR (IL-8) (MONOCYTE-DERIVED NEUTROPHIL
 DE CHEMOTACTIC FACTOR) (MNCFC) (T-CELL CHEMOTACTIC FACTOR) (NEUTROPHIL-
 DE ACTIVATING PROTEIN 1) (NAF-1) (LYMPHOCYTE-DERIVED NEUTROPHIL-
 DE ACTIVATING FACTOR) (LYNAP) (PROTEIN 3-10C) (NEUTROPHIL-ACTIVATING
 DE FACTOR) (NAF) (GRANULOCYTE CHEMOTACTIC PROTEIN 1) (GCP-1) (EMOCTAKIN).
 GN IL8.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 RN [1]
 RN EUKARYOTA; PRIMATES.
 RC SEQUENCE FROM N.A.
 RC MEDLINE: 88258376.
 RA MATSUSHIMA K., MORISHITA K., YOSHIMURA T., LAVU S., KOBAYASHI Y.,
 RA LEW W., APPELLA E., KUNG H., LEONARD E.J., OPPENHEIM J.J.;
 RA J. EXP. MED. 167:1883-1893(1988).
 RL [2]
 RL SEQUENCE FROM N.A.
 RA MEDLINE: 87224164.
 RA SCHMID J., WEISSMANN C.;
 RA J. IMMUNOL. 139:250-256(1987).
 RL [3]
 RL SEQUENCE FROM N.A.
 RA MEDLINE: 89313739.
 RA KOWALSKI J., DENHARDT D.T.;
 RA MOL. CELL. BIOL. 9:1946-1957(1989).
 RL [4]
 RL SEQUENCE FROM N.A.
 RA MEDLINE: 89309826.
 RA MUKAIDA N., SHIROO M., MATSUSHIMA K.;
 RA J. IMMUNOL. 143:1366-1371(1989).
 RL [5]
 RL SEQUENCE FROM N.A.
 RA ISHIKAWA J.;
 RL SUBMITTED (JAN-1993) TO EMBL/GENBANK/DBJ DATA BANKS.
 CC [6]
 CC SEQUENCE OF 23-46.
 CC MEDLINE: 89246368.
 CC GOLDS E.E., NASON P., NYIKOS P.;
 CC BIOCHEM. J. 259:585-588(1989).
 RL [7]
 RL SEQUENCE OF 23-54.
 RA MEDLINE: 89279141.
 RA SUZUKI K., MIYASAKA H., OTA H., YAMAKAWA Y., TAGAWA M., KURAMOTO A.,
 RA MIJONO S.;
 RA J. EXP. MED. 169:1895-1901(1989).
 RL [8]
 RL SEQUENCE OF 28-99.
 RA MEDLINE: 88162914.
 RA GREGORY H., YOUNG J., SCHROEDER J.M., MROWITZ U., CHRISTOPHERS E.;
 RA BIOCHEM. BIOPHYS. RES. COMMUN. 151:883-890(1988).
 RL [9]
 RL SEQUENCE OF 28-59.
 RA MEDLINE: 88106502.
 RA WALZ A., PEVERI P., ASCHAUER H., BAGGIOLINI M.;
 RA BIOCHEM. BIOPHYS. RES. COMMUN. 149:755-761(1987).
 RL [10]
 RL SEQUENCE OF 28-69.
 RA MEDLINE: 88097462.
 RA YOSHIMURA T., MATSUSHIMA K., TANAKA S., ROBINSON E.A., APPELLA E.,

RA OPPENHEIM J.J., LEONARD E.J.;
 RL PROC. NATL. ACAD. SCI. U.S.A. 84:9233-9237(1987).
 RN [11]
 RP STRUCTURE BY NMR.
 RX MEDLINE: 90234679.
 RA CLORE G.M., APPELLA E., YAMADA M., MATSUSHIMA K., GROENENBORN A.M.;
 RL BIOCHEMISTRY 29:1689-1696(1990).
 RN [12]
 RP X-RAY CRYSTALLOGRAPHY (1.6 ANGSTROMS).
 RX MEDLINE: 90216714.
 RA BALDWIN E.T., FRANKLIN K.A., APPELLA E., YAMADA M., MATSUSHIMA K.,
 WLADAMER A., WEBER I.T.;
 RL J. BIOL. CHEM. 265:6851-6853(1990).
 RN [13]
 RP X-RAY CRYSTALLOGRAPHY, AND STRUCTURE BY NMR.
 RX MEDLINE: 91171286.
 RA CLORE G.M., GROENENBORN A.M.;
 RL J. MOL. BIOL. 217:611-620(1991).
 RN [14]
 RP X-RAY CRYSTALLOGRAPHY (1.6 ANGSTROMS), AND STRUCTURE BY NMR.
 RX MEDLINE: 91110556.
 RA BALDWIN E.T., WEBER I.T., ST CHARLES R., XUAN J.C., APPELLA E.,
 YAMADA M., MATSUSHIMA K., EDWARDS B.F., CLORE G.M., GROENENBORN A.M.;
 RL PROC. NATL. ACAD. SCI. U.S.A. 88:502-506(1991).
 RN [15]
 RP N-TERMINAL FORMS.
 RX MEDLINE: 91006326.
 RA VAN DAMME J., RAMPART M., CONING R., DECOCK B., VAN OSSELAER N.,
 WILLEMS J., BILLIAU A.;
 RL EUR. J. IMMUNOL. 20:2113-2118(1990).
 RN [16]
 RP N-TERMINAL FORMS.
 RX MEDLINE: 89231715.
 RA VAN DAMME J., VAN BEUMEN J., CONINGS R., DECOCK B., BILLIAU A.;
 RL EUR. J. BIOCHEM. 181:337-344(1989).
 RN [17]
 RP SYNTHESIS OF 28-99.
 RX MEDLINE: 91175767.
 RA CLARK-LEWIS I., MOSE B., WALZ A., BAGGIOLINI M., SCOTT G.J.,
 AEBERSOLD R.;
 RL BIOCHEMISTRY 30:3128-3135(1991).
 RN [18]
 RP REVIEW.
 RX MEDLINE: 92347562.
 RA BAGGIOLINI M., CLARK-LEWIS I.;
 RL FEBS LETT. 307:97-101(1992).
 CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
 BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
 CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
 CC RESPONSE TO AN INFLAMMATORY STIMULUS.
 CC -1- SUBUNIT: HOMODIMER.
 CC -1- SIMILARITY: BELONGS TO THE INTERCINE ALPHA FAMILY (SMALL CYTOKINE
 CC C-X-C) (CHEMOKINE CXCL).
 CC EMBL: Y00787; G34519; -;
 DR EMBL: M17017; G179580; -;
 DR EMBL: M26383; G188628; -;
 DR EMBL: M28130; G186368; -;
 DR EMBL: D14283; G219916; -;
 DR PIR: A37034; A37034.
 DR PIR: S03975; S03975.
 DR PIR: S04216; S04216.
 DR PDB: 1IL8; 15-JAN-91.
 DR PDB: 2IL8; 15-JAN-91.
 DR PDB: 3IL8; 15-OCT-92.
 DR PDB: 1ICW; 12-MAR-97.
 DR PDB: 1IKL; 15-OCT-95.
 DR PDB: 1IKM; 15-OCT-95.
 DR MIM: 146930; -;
 DR PROSITE: PS00471; SMALL CYTOKINES_CXC; 1.
 KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL; 3D-STRUCTURE.
 FT SIGNAL 1 22
 FT CHAIN 23 99 INTERLEUKIN-8.
 FT PROPE 23 30 ONE OR MORE OF THESE RESIDUES ARE MISSING

FT DISULFID 34 61 IN SOME MATURE FORMS OF IL-8.
 FT DISULFID 36 77
 FT CONFLICT 53 53 R -> L (IN REF. 7).
 FT HELIX 46 48
 FT STRAND 49 55
 FT STRAND 58 58
 FT TURN 59 60
 FT STRAND 61 61
 FT STRAND 65 70
 FT TURN 71 72
 FT STRAND 75 78
 FT TURN 80 81
 FT HELIX 83 97
 FT TURN 98 98
 SQ SEQUENCE 99 AA; 11098 MW; 89D1891F CRC32;
 Query Match 85.1%; Score 86; DB 1; Length 99;
 Best Local Similarity 75.0%; Pred. No. 4.55e-07;
 Matches 9; Conservative 3; Mismatches 0; Indels 0; Gaps 0;
 Db 75 EICLDPKKNWQ 86
 QY 1 EICLDPKKNWQ 12
 RESULT 12
 ID IL8_CAVPO STANDARD; PRT; 101 AA.
 AC P49113;
 DT 01-FEB-1996 (REL. 33, CREATED)
 DT 01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
 DT 01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
 DE INTERLEUKIN-8 PRECURSOR (IL-8) (NEUTROPHIL ATTRACTANT PROTEIN 1)
 DE (NP-1).
 GN IL8.
 OS CAVIA PORCELLUS (GUINEA PIG).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUKARYOTA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-SPLEEN.
 RX MEDLINE: 94065176.
 RA YOSHIMURA T., JOHNSON D.G.;
 RL J. IMMUNOL. 151:6225-6236(1993).
 CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
 BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
 CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
 CC RESPONSE TO AN INFLAMMATORY STIMULUS (BY SIMILARITY).
 CC -1- SUBUNIT: HOMODIMER (BY SIMILARITY).
 CC -1- SIMILARITY: BELONGS TO THE INTERCINE ALPHA FAMILY (SMALL CYTOKINE
 CC C-X-C) (CHEMOKINE CXCL).
 CC EMBL: L04986; G459765; -;
 DR PROSITE: PS00471; SMALL CYTOKINES_CXC; 1.
 KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
 FT SIGNAL 1 22
 FT CHAIN 23 101
 FT DISULFID 34 61 INTERLEUKIN-8.
 FT DISULFID 36 77 BY SIMILARITY.
 SQ SEQUENCE 101 AA; 11414 MW; E13FB521 CRC32;
 Query Match 85.1%; Score 86; DB 1; Length 101;
 Best Local Similarity 75.0%; Pred. No. 4.55e-07;
 Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
 Db 75 OICLDPKKRWQ 86
 QY 1 EICLDPKKNWQ 12
 RESULT 13
 ID MCPA_BOVIN STANDARD; PRT; 99 AA.
 AC P28291;
 DT 01-DEC-1992 (REL. 24, CREATED)

DE 01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
 DT 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1A PRECURSOR (MCP-1A) (MCP-1) (ACIDIC
 DE SEMINAL FLUID PROTEIN).
 OS BOS TAURUS (BOVINE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUTHERIA; ARTIODACTYLA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-SEMINAL PLASMA;
 RX MEDLINE; 92096117.
 RA WEMPE F., HENSCHEN A., SCHEIT K.H.;
 RL DNA CELL BIOL. 10:671-679(1991).
 RN [2]
 RP SEQUENCE FROM N.A.
 RC TISSUE-SEMINAL PLASMA;
 RX MEDLINE; 92181448.
 RA WEMPE F., EINSPIERER R., SCHEIT K.H.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 183:232-237(1992).
 RN [3]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 94383337.
 RA WEMPE F., KOHLMANN J.K., SCHEIT K.H.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 202:1272-1279(1994).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
 CC NEUTROPHILS.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL; L32659; G624394; -.
 DR EMBL; M84602; G163395; -.
 DR PIR; A39296; A39296.
 DR PIR; JC2336; JC2336.
 DR HSSP; P13500; IMCA.
 DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOTAXIS; SIGNAL.
 FT SIGNAL 1 23 BY SIMILARITY.
 FT CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 1A.
 FT MOD_RES 24 24 PYROLIDONE CARBOXYLIC ACID (BY
 FT DISULFID 34 59 SIMILARITY).
 FT DISULFID 35 75 BY SIMILARITY.
 FT SEQUENCE 99 AA; 11114 MW; C8F5821D CRC32;
 SQ
 Query Match 84.2%; Score 85; DB 1; Length 99;
 Best Local Similarity 83.3%; Pred. No. 7.97e-07;
 Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
 Db 73 ELCDPDKOKWQ 84
 QY 1 EICLDPKOKWQ 12
 RESULT 14
 ID MCP1_RABIT STANDARD; PRT; 125 AA.
 AC P28292;
 DT 01-DEC-1992 (REL. 24, CREATED)
 DT 01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1).
 GN SCYAL.
 OS ORYCTOLAGUS CUNICULUS (RABBIT).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUTHERIA; LAGOMORPHA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-NEW ZEALAND WHITE; TISSUE-SPLEEN;
 RX MEDLINE; 91225489.
 RA YOSHIMURA T., YUHKI N.;
 RL J. IMMUNOL. 146:3483-3488(1991).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
 CC NEUTROPHILS.
 CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE

CC C-C) (CHEMOKINE CC).
 DR EMBL; M37440; G163470; -.
 DR HSSP; P13500; IMCA.
 DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
 FT SIGNAL 1 23 BY SIMILARITY.
 FT CHAIN 24 125 MONOCYTE CHEMOTACTIC PROTEIN 1.
 FT MOD_RES 24 24 PYROLIDONE CARBOXYLIC ACID (BY
 FT DISULFID 34 59 SIMILARITY).
 FT DISULFID 35 75 BY SIMILARITY.
 FT CARBOHYD 40 40 POTENTIAL.
 FT CARBOHYD 55 55 POTENTIAL.
 FT CARBOHYD 112 112 POTENTIAL.
 SQ SEQUENCE 125 AA; 13776 MW; FBAC9D27 CRC32;
 Query Match 83.2%; Score 84; DB 1; Length 125;
 Best Local Similarity 90.9%; Pred. No. 1.39e-06;
 Matches 10; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
 Db 74 ICADPKOKWQ 84
 QY 2 ICLDPKOKWQ 12
 RESULT 15
 ID EOTA_MOUSE STANDARD; PRT; 97 AA.
 AC P48298;
 DT 01-FEB-1996 (REL. 33, CREATED)
 DT 01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
 GN SCYAL1.
 OS MUS MUSCULUS (MOUSE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUTHERIA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-LUNG;
 RX MEDLINE; 96004658.
 RA ROTHENBERG M.E., LUSTER A.D., LEDER P.;
 RL PROC. NATL. ACAD. SCI. U.S.A. 92:8960-8964(1995).
 RN [2]
 RP SEQUENCE FROM N.A.
 RC STRAIN-C57BL/6J; TISSUE-LUNG;
 RX MEDLINE; 96158746.
 RA GONZALO J.-A., JIA G.-Q., AGUIRRE V., FRIEND D., COYLE A.J.,
 RA JENKINS N.A., LIN G.-S., KATZ H., LICHTMAN A., COPELAND N.G., KOPE M.,
 RA GUTIERREZ-RAMOS J.-C.;
 RL IMMUNITY 4:1-14(1996).
 CC -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
 CC DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS (A PROMINENT
 CC FEATURE OF ALLERGIC INFLAMMATORY REACTIONS), BUT NOT
 CC LYMPHOCYTES, MACROPHAGES OR NEUTROPHILS.
 CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
 CC -1- TISSUE SPECIFICITY: EXPRESSED CONSTITUTIVELY IN THE THYMUS.
 CC EXPRESSION INDUCIBLE IN THE LUNG (TYPE I ALVEOLAR EPITHELIAL
 CC CELLS), INTESTINE, HEART, SPLEEN, KIDNEY.
 CC -1- INDUCTION: BY INTERFERON-GAMMA AND LIPOPOLYSACCHARIDE (LPS).
 CC -1- PTM: O-GLYCOSYLATED (PROBABLE).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL; U26426; G995911; -.
 DR EMBL; U40672; G113937; -.
 DR MGD; MG1:103576; SCYAL1.
 DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
 KW EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
 KW INFLAMMATORY RESPONSE.
 FT SIGNAL 1 23 POTENTIAL.
 FT CHAIN 24 97 EOTAXIN.
 FT DISULFID 32 57 BY SIMILARITY.
 FT DISULFID 33 73 BY SIMILARITY.
 SQ SEQUENCE 97 AA; 10893 MW; F85A96BC CRC32;

Query Match 82.2%; Score 83; DB 1; Length 97;
 Best Local Similarity 83.3%; Pred. No. 2,42e-06;
 Matches 10; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Db 71 EICADPKKRWQ 82
 ||| ||| |||
 1 EICLDPKRWQ 12

RESULT 16
 ID BOTA_RAT STANDARD; PRT; 97 AA.
 AC P97545; 008780;
 DT 15-JUL-1998 (REL. 36, CREATED)
 DT 15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
 OS RATTUS NORVEGICUS (RAT).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA WILLIAMS C.M., NEWTON D.J., WILSON S.A., COLEMAN J.C.,
 RA FLANAGAN B.F.;
 RL SUBMITTED (DEC-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [2]
 RP SEQUENCE FROM N.A.
 RC TISSUE=LUNG;
 RA ISHII Y.;
 PL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 CC -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
 DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT
 FEATURE OF ALLERGIC INFLAMMATORY REACTIONS (BY SIMILARITY).
 CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
 CC -1- PTM: O-GLYCOSYLATED (PROBABLE).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 C-C) (CHEMOKINE CC).
 CC EMBL: Y08358; E274141;
 DR EMBL: Y06637; G2098785;
 DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
 KW EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
 KM INFLAMMATORY RESPONSE.
 FT SIGNAL 1 23 POTENTIAL.
 FT CHAIN 24 97 EOTAXIN.
 FT DISULFID 32 57 BY SIMILARITY.
 FT DISULFID 33 73 BY SIMILARITY.
 FT CARBOHYD 94 94 POTENTIAL.
 FT CONFLICT 3 3 L -> S (IN REF. 2).
 SO SEQUENCE 97 AA; 10851 MW; 05B4ED45 CRC32;

Query Match 82.2%; Score 83; DB 1; Length 97;
 Best Local Similarity 83.3%; Pred. No. 2,42e-06;
 Matches 10; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Db 71 EICADPKKRWQ 82
 ||| ||| |||
 1 EICLDPKRWQ 12

RESULT 17
 ID MCP3_HUMAN STANDARD; PRT; 99 AA.
 AC P80058;
 DT 01-DEC-1992 (REL. 24, CREATED)
 DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 3 PRECURSOR (MCP-3) (MONOCYTE
 DE CHEMOTRACTANT PROTEIN 3) (NC28).
 GN SC1A7 OR MCP3.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A., AND SEQUENCE OF 31-67 AND 71-99.

RX MEDLINE: 93213290.
 RA OPDENAKKER G., FROYEN G., FITEN P., PROOST P., VAN DAMME J.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 191:535-542(1993).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 94375065.
 RA OPDENAKKER G., FITEN P., NYS G., FROYEN G., VAN ROY N., SPELLEMAN F.,
 RA LAUREYS G., VAN DAMME J.;
 RL GENOMICS 21:403-408(1994).
 RN [3]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 93305913.
 RA MINTY A., CHALON P., GUILLEMOT J.-C., KAGHAD M., LIANZUN P.,
 RA MAGALIN M., MILLOUX B., MINTY C., RAMOND P., VITA N., LUPKER J.,
 RA SHIRE D., FERRARA P., CAPUT D.;
 RL EUR. CYTOKINE NETW. 4:99-110(1993).
 RN [4]
 RP SEQUENCE OF 30-99.
 RC TISSUE=OSTEOSARCOMA;
 RX MEDLINE: 92308855.
 RA VAN DAMME J., PROOST P., LENAERTS J.-P., OPDENAKKER G.;
 RL J. EXP. MED. 176:59-65(1992).
 RN [5]
 RP STRUCTURE BY NMR, AND SUBUNIT.
 RX MEDLINE: 97053697.
 RA KIM K.-S., RAJARATHNAM K., CLARK-LEWIS I., STIKES B.D.;
 RL FEBS LETT. 395:277-282(1996).
 RN [6]
 RP STRUCTURE BY NMR.
 RX MEDLINE: 97263733.
 RA MEUNIER S., BERRASSAU J.-M., GUILLEMOT J.-C., FERRARA P., DARBON H.;
 RL BIOCHEMISTRY 36:4412-4422(1997).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND
 EOSINOPHILS, BUT NOT NEUTROPHILS. AUGMENTS MONOCYTE ANTI-TUMOR
 CC ACTIVITY. ALSO INDUCES THE RELEASE OF GELATINASE B. THIS PROTEIN
 CC CAN BIND HEPARIN.
 CC -1- SUBUNIT: MONOMER.
 CC -1- PTM: O-GLYCOSYLATED.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 C-C) (CHEMOKINE CC).
 CC EMBL: X72308; G313708; ALT_INIT.
 DR EMBL: X72309; -: NOT ANNOTATED_CDS.
 DR EMBL: X71087; G288399; -;
 DR EMBL: X71087; G288398; ALT_INIT.
 DR EMBL: X71087; G288397; ALT_INIT.
 DR PIR: JC1478; JC1478.
 DR PIR: S32222; S32222.
 DR PIR: A54678; A54678.
 DR PDB: INCY; 15-OCT-97.
 DR MIM: 158106; -;
 DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOTAXIS; HEPARIN-BINDING; GLYCOPROTEIN; SIGNAL;
 KM INFLAMMATORY RESPONSE; 3D-STRUCTURE.
 FT SIGNAL 1 23 MONOCYTE CHEMOTACTIC PROTEIN 3.
 FT MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID.
 FT DISULFID 34 59 BY SIMILARITY.
 FT DISULFID 35 75 BY SIMILARITY.
 FT CARBOHYD 29 29 POTENTIAL.
 FT CONFLICT 30 30 T -> K (IN REF. 4).
 FT CONFLICT 30 30 MISSING (IN REF. 4).
 SO SEQUENCE 99 AA; 11200 MW; 7502E19C CRC32;

Query Match 82.2%; Score 83; DB 1; Length 99;
 Best Local Similarity 83.3%; Pred. No. 2,42e-06;
 Matches 10; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Db 73 EICADPKRWQ 84
 ||| ||| |||
 1 EICLDPKRWQ 12

RESULT 18

ID EOTA HUMAN STANDARD: PRT: 97 AA.
 AC P51671: P50877; Q92490; Q92491;
 DT 01-OCT-1996 (REL. 34, CREATED)
 DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
 DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
 DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
 GN SCYAL1
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 96181758.
 RA GARCIA-ZEPEDA E.A., ROTHENBERG M.E., OMNEY T.R., LEDER P.,
 RA LUSTER A.D.;
 RA NAT. MED. 2:449-456(1996).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 96189937.
 RA PONTATH P.D., QIN S., RINGLER D.J., CLARK-LEWIS I., WANG J., KASSAM N.,
 RA SMITH H., SHI X., GONZALO J.A., NEWMAN W., GUTIERREZ-RAMOS J.C.,
 RA MACRAY C.R.;
 RA J. CLIN. INVEST. 97:604-612(1996).
 RN [3]
 RP SEQUENCE FROM N.A.
 RC TISSUE-SMALL INTESTINE;
 RX MEDLINE: 96205964.
 RA KITAHARA M., NAKAJIMA T., IMAI T., HARADA S., COMBADIÈRE C.,
 RA TIEFANY H.L., MURPHY P.M., YOSHIE O.;
 RA J. BIOL. CHEM. 271:7725-7730(1996).
 RN [4]
 RP SEQUENCE FROM N.A., SEQUENCE OF 60-65 AND 75-88, AND VARIANTS.
 RC TISSUE-FORSKIN;
 RX MEDLINE: 96374440.
 RA BARTELS J., SCHLUETER C., RICHTER E., NOSO N., KULKE R.,
 RA CHRISTOPHERS E., SCHROEDER J.M.;
 RA BIOCHEM. BIOPHYS. RES. COMMUN. 225:1045-1051(1996).
 RN [5]
 RP SEQUENCE FROM N.A.
 RC TISSUE-PLACENTA;
 RX MEDLINE: 97312708.
 RA GARCIA-ZEPEDA E.A., ROTHENBERG M.E., WEREMOWICZ S., SARAFI M.N.,
 RA MORTON C.C., LUSTER A.D.;
 RA GENOMICS 41:471-476(1997).
 RN [6]
 RP SEQUENCE FROM N.A.
 RC TISSUE-LUNG;
 RX MEDLINE: 97445071.
 RA HEIN H., SCHLUETER C., KULKE R., CHRISTOPHERS E., SCHROEDER J.M.,
 RA BARTELS J.;
 RA BIOCHEM. BIOPHYS. RES. COMMUN. 237:537-542(1997).
 RN [7]
 RP FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
 DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT
 FEATURE OF ALLERGIC INFLAMMATORY REACTIONS.
 CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
 CC -1- PTM: O-GLYCOSYLATED (PROBABLE).
 CC -1- INDUCTION: BY TNF-ALPHA, IL-1 ALPHA AND INTERFERON GAMMA.
 CC -1- SIMILARITY: BELONGS TO THE INTERCINE BETA FAMILY (SMALL CYTOKINE
 C-C) (CHEMOKINE CC).
 DR EMBL: U46573; G1280141; -;
 DR EMBL: U34780; G1185440; -;
 DR EMBL: D49372; G1552241; -;
 DR EMBL: 269281; E221070; -;
 DR EMBL: 273668; E251275; -;
 DR EMBL: 275669; E251258; -;
 DR EMBL: U46572; G2088509; -;
 DR EMBL: 292709; E329504; -;
 DR MIM: 601156; -;
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 DR EOSINOPHIL: CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
 KW INFLAMMATORY RESPONSE; POLYMORPHISM.
 FT SIGNAL 1 23 POTENTIAL.
 FT CHAIN 24 97 EOTAXIN.

FT DISULFID 32 57 BY SIMILARITY.
 FT DISULFID 33 73 BY SIMILARITY.
 FT VARIANT 7 7 L -> P (IN CLONE 34).
 FT VARIANT 23 23 A -> T (IN CLONE 53).
 FT VARIANT 51 51 R -> S (IN CLONE 34).
 FT VARIANT 79 79 K -> R (IN CLONE 53).
 SQ SEQUENCE 97 AA: 10732 MW: 6C0F3D98 CRC32;
 Query Match 81.2%; Score 82; DB 1; Length 97;
 Best Local Similarity 75.0%; Pred. No. 4.21e-06;
 Matches 9; Conservative 1; Mismatches 2; Indels 0; Gaps 0;
 Db 71 DICADPKKKWQ 82
 :|||||
 Qy 1 EICLDPKKKWQ 12
 RESULT 19
 ID IL8 CERTO STANDARD: PRT: 101 AA.
 AC P46553;
 DT 01-NOV-1995 (REL. 32, CREATED)
 DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
 DT 01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
 DE INTERLEUKIN-8 PRECURSOR (IL-8).
 GN IL8
 OS CERCOPIBUS TORQUATUS ATYS (RED-CROWNED MANGABEY) (SOOTY MANGABEY).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-BLOOD;
 RX MEDLINE: 96003435.
 RA VILLINGER F.J., BRAR S.S., MAYNE A.E., CHIKALA N., ANSARI A.A.;
 RA J. IMMUNOL. 155:3946-3954(1995).
 CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
 BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
 NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
 RESPONSE TO AN INFLAMMATORY STIMULUS (BY SIMILARITY).
 CC -1- SUBUNIT: HOMODIMER (BY SIMILARITY).
 CC -1- SIMILARITY: BELONGS TO THE INTERCINE ALPHA FAMILY (SMALL CYTOKINE
 C-X-C) (CHEMOKINE CX-C).
 DR EMBL: U19639; G644796; -;
 DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; 1.
 KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
 FT SIGNAL 1 22 BY SIMILARITY.
 FT CHAIN 23 101 INTERLEUKIN-8.
 FT DISULFID 34 61 BY SIMILARITY.
 FT DISULFID 36 77 BY SIMILARITY.
 SQ SEQUENCE 101 AA: 11309 MW: 47F1BF00 CRC32;
 Query Match 81.2%; Score 82; DB 1; Length 101;
 Best Local Similarity 75.0%; Pred. No. 4.21e-06;
 Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
 Db 75 EICLDPKKKWQ 86
 :|||||
 Qy 1 EICLDPKKKWQ 12
 RESULT 20
 ID IL8 MACMU STANDARD: PRT: 101 AA.
 AC P51495;
 DT 01-OCT-1996 (REL. 34, CREATED)
 DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
 DT 01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
 DE INTERLEUKIN-8 PRECURSOR (IL-8).
 GN IL8
 OS MACACA MULATTA (RHESUS MACAQUE), AND MACACA NEMESTRINA (PIG-TAILED
 MACAQUE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A.

RC TISSUE-BLOOD:
 RX MEDLINE: 96003435.
 RA VILLINGER F.J., BRAR S.S., MAYNE A.E., CHIKKALA N., ANSARI A.A.;
 RL J. IMMUNOL. 155:3946-3954(1995).
 RN [2]
 RP SEQUENCE FROM N.A.
 RC SPECIES=M.ULIATA: TISSUE-BLOOD;
 RX MEDLINE: 95355132.
 RA MINNERLY J.C., BAGANOFF M.P., DEPELIER C.L., KELLER B.T.,
 RA PAPP S.R., WIDOMSKI D.L., FRETLAND D.J., BOLANOWSKI M.A.;
 RL INFLAMMATION 19:313-331(1995).
 CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
 CC BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
 CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
 CC RESPONSE TO AN INFLAMMATORY STIMULUS (BY SIMILARITY).
 CC -1- SUBUNIT: HOMODIMER (BY SIMILARITY).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
 CC C-X-C) (CHEMOKINE CXC).
 CC EMBL: U19849; G644816; -;
 DR EMBL: U19851; G644820; -;
 DR EMBL: S78535; G1042228; -;
 DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; 1.
 KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
 FT SIGNAL 1 22 BY SIMILARITY.
 FT CHAIN 23 101 INTERLEUKIN-8.
 FT DISULFID 34 61 BY SIMILARITY.
 FT DISULFID 36 77 BY SIMILARITY.
 SQ SEQUENCE 101 AA; 11320 MW; 77D78AAO CRC32;
 Query Match 81.2%; Score 82; DB 1; Length 101;
 Best Local Similarity 75.0%; Pred. No. 4.21e-06;
 Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
 Db 75 ELCDPKPKWVQ 86
 QY 1 ELCDPKPKWVQ 12
 RESULT 21
 ID MCP2_PIG STANDARD; PRT; 99 AA.
 AC P49873;
 DT 01-OCT-1996 (REL. 34, CREATED)
 DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
 DE CHEMOTACTICANT PROTEIN 2).
 GN SCY28 OR MCP2.
 OS SUS SCROFA (PIG).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; ARTIODACTYLA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 95091716.
 RA HOSANG K.K., KNOKE I.I., KLAUDINY J.J., WEMPE F.F., WUTKE W.W.,
 RA SCHEIT K.K.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 205:148-153(1994).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES. THIS PROTEIN
 CC CAN BIND HEPARIN.
 CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 CC EMBL: Z48480; G683719; -;
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOTAXIS; SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE.
 FT SIGNAL 1 23 BY SIMILARITY.
 FT CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 2.
 FT MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID (BY
 FT SIMILARITY).
 FT DISULFID 34 59 BY SIMILARITY.
 FT DISULFID 35 75 BY SIMILARITY.
 SQ SEQUENCE 99 AA; 10903 MW; B7620BCF CRC32;
 Query Match 80.2%; Score 81; DB 1; Length 99;

Best Local Similarity 75.0%; Pred. No. 7.29e-06;
 Matches 9; Conservative 1; Mismatches 2; Indels 0; Gaps 0;
 Db 73 EVCADPKQKVVQ 84
 QY 1 EICLDPKQKVVQ 12
 RESULT 22
 ID MCP1_CAVPO STANDARD; PRT; 120 AA.
 AC Q08782;
 DT 01-NOV-1995 (REL. 32, CREATED)
 DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE
 DE CHEMOTACTICANT PROTEIN-1).
 GN SCY22 OR MCP1.
 OS CAVIA PORCELLUS (GUINEA PIG).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN=2; TISSUE=SPLEEN;
 RX MEDLINE: 93267104.
 RA YOSHIMURA T.;
 RL J. IMMUNOL. 150:5025-5032(1993).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
 CC NEUTROPHILS.
 CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 CC EMBL: L04985; G349821; -;
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
 FT SIGNAL 1 23 BY SIMILARITY.
 FT CHAIN 24 120 MONOCYTE CHEMOTACTIC PROTEIN 1.
 FT MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID (BY
 FT SIMILARITY).
 FT DISULFID 33 57 BY SIMILARITY.
 FT DISULFID 34 73 BY SIMILARITY.
 FT CARBOHYD 97 97 POTENTIAL.
 SQ SEQUENCE 120 AA; 13741 MW; 22FAD257 CRC32;
 Query Match 80.2%; Score 81; DB 1; Length 120;
 Best Local Similarity 75.0%; Pred. No. 7.29e-06;
 Matches 9; Conservative 1; Mismatches 2; Indels 0; Gaps 0;
 Db 71 EVCADPKQKVVQ 82
 QY 1 EICLDPKQKVVQ 12
 RESULT 23
 ID MCP5_MOUSE STANDARD; PRT; 104 AA.
 AC Q62401;
 DT 01-NOV-1997 (REL. 35, CREATED)
 DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 5 PRECURSOR (MCP-5) (MCP-1 RELATED
 DE CHEMOKINE).
 GN SCY21 OR MCP5.
 OS MUS MUSCULUS (MOUSE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 97079149.
 RA JIA G.-Q., GONZALO J.A., LLOYD C., KREMER L., LU L., MARTINEZ A.C.,
 RA WERSHIL B.K., GUTIERREZ-RAMOS J.C.;
 RL J. EXP. MED. 184:1939-1951(1996).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 97149438.

RA SARAFI M.N., GARCIA-ZEPEDA E.A., MACLEAN J.A., CHAO I.F.,
RA LUSTER A.D.;
CC J. EXP. MED. 185:99-109(1997).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS EOSINOPHILS, MONOCYTES,
CC AND LYMPHOCYTES BUT NOT NEUTROPHILS. POTENT MONOCYTE ACTIVE
CC CHEMOKINE THAT SIGNALS THROUGH CCR2. INVOLVED IN ALLERGIC
CC INFLAMMATION AND THE HOST RESPONSE TO PATHOGENS AND MAY PLAY A
CC PIYOTAL ROLE DURING EARLY STAGES OF ALLERGIC LUNG INFLAMMATION.
CC -1- SUBUNIT: HOMODIMER (BY SIMILARITY).
CC -1- TISSUE SPECIFICITY: PREDOMINANTLY EXPRESSED IN THE LYMPH NODES AND
CC THYMUS. ALSO FOUND IN THE SALIVARY GLANDS CONTAINING LYMPH NODES,
CC BREAST, HEART, LUNG, BRAIN, SMALL INTESTINE, KIDNEY AND COLON.
CC -1- INDUCTION: BY IFN-GAMMA AND LIPOPOLYSACCHARIDE (LPS).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
CC EMBL: U50712; G1477582; -.
DR EMBL: U66670; G1881583; -.
DR MGD: MGI:108224; SCYAL2.
DR PROSITE: PS00472; SMALL CYTOKINES CC; 1.
DR CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
KW CYTOKINE.
FT SIGNAL 1 22 BY SIMILARITY.
FT CHAIN 23 104 MONOCYTE CHEMOTACTIC PROTEIN 5.
FT DISULFID 33 58 BY SIMILARITY.
FT DISULFID 34 74 BY SIMILARITY.
SQ SEQUENCE 104 AA; 11659 MW; 08FA6C35 CRC32;

Query Match 78.2%; Score 79; DB 1; Length 104;
Best Local Similarity 81.8%; Pred. No. 2.17e-05;
Matches 9; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 72 EICADPKRKWV 82
QY 1 EICLDPKRWV 11

RESULT 24
ID SDF1_MOUSE STANDARD; PRT; 89 AA.
AC P40224;
DT 01-FEB-1995 (REL. 31, CREATED)
DT 01-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE)
DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
DE STROMAL CELL-DERIVED FACTOR 1 PRECURSOR (SDF-1) (PRE-B CELL GROWTH
DE STIMULATING FACTOR) (PBSF) (12-O-TETRADECANOYLPHORBOL 13-ACETATE
DE REPEPSED PROTEIN 1) (TPARI) (THYMIC LYMPHOMA CELL STIMULATING FACTOR)
DE (TLESF).
GN SDF1.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 94181581.
RA NAGASAWA T., RIKUTANI H., KISHIMOTO T.;
RL PROC. NATL. ACADE. SCI. U.S.A. 91:2305-2309(1994).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 93342488.
RA TASHIRO K., TADA H., HEIKER R., SHIROZU M., NAKANO T., HONJO T.;
RL SCIENCE 261:600-603(1993).
RN [3]
RP SEQUENCE FROM N.A.
RX MEDLINE: 95073497.
RA JIANG W., ZHOU P., KAHN S.M., TOMITA N., JOHNSON M.D.,
RA WEINSTEIN I.B.;
RL EXP. CELL RES. 215:284-293(1994).
RN [4]
RP SEQUENCE FROM N.A.
RC STRAIN-AK/J;
RA NOMURA M., NAKATA Y., UZAWA A., NOSE M., AKASHI M., SUZUKI G.;
RL SUBMITTED (DEC-1994) TO EMBL/GENBANK/DBJ DATA BANKS.
CC -1- FUNCTION: CHEMOTACTIC ACTIVE ON T-LYMPHOCYTES, MONOCYTES, BUT
CC NOT NEUTROPHILS.
CC -1- FUNCTION: STIMULATES THE PROLIFERATION OF BONE MARROW-DERIVED B

CC PROGENITOR CELLS IN THE PRESENCE OF IL-7 AS WELL AS GROWTH OF THE
CC STROMAL CELL-DEPENDENT B-CELL CLONE DW34 CELLS.
CC -1- ALTERNATIVE PRODUCTS: TWO DIFFERENT FORMS (ALPHA AND BETA) ARE
CC PROBABLY GENERATED BY ALTERNATIVE SPLICING.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
CC C-X-C) (CHEMOKINE CXCL).
DR EMBL: D21072; G468457; -.
DR EMBL: I12029; G393180; -.
DR EMBL: I12030; G393182; -.
DR EMBL: S74318; G786394; -.
DR EMBL: D43804; G1304174; -.
DR EMBL: D43805; G1304175; -.
DR PIR: A53497; A53497.
DR MGD: MGI:103556; SDF1.
DR PROSITE: PS00471; SMALL CYTOKINES CXCL; FALSE_NEG.
KW CYTOKINE; CHEMOTAXIS; GROWTH FACTOR; SIGNAL; ALTERNATIVE SPLICING.
FT SIGNAL 1 19 POTENTIAL.
FT CHAIN 20 89 STROMAL CELL-DERIVED FACTOR 1.
FT DISULFID 30 55 BY SIMILARITY.
FT DISULFID 32 71 BY SIMILARITY.
FT VARSPLIC 89 89 K -> KRLKM (IN FORM BETA).
SQ SEQUENCE 89 AA; 10032 MW; 222C4E52 CRC32;

Query Match 77.2%; Score 78; DB 1; Length 89;
Best Local Similarity 58.3%; Pred. No. 3.72e-05;
Matches 7; Conservative 4; Mismatches 1; Indels 0; Gaps 0;

Db 69 QVCIDPKRLWV 80
QY 1 EICLDPKRWV 12

RESULT 25
ID SDF1_HUMAN STANDARD; PRT; 93 AA.
AC P48061;
DT 01-FEB-1996 (REL. 33, CREATED)
DT 01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE STROMAL CELL-DERIVED FACTOR 1 PRECURSOR (SDF-1) (PRE-B CELL GROWTH
DE STIMULATING FACTOR) (PBSF).
GN SDF1.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; PRIMATES.
RN [1]
RP SEQUENCE FROM N.A.
RA SPOTILA L.D.;
RL SUBMITTED (OCT-1994) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 96039262.
RA SHIROZU M., NAKANO T., INAZAWA J., TASHIRO K., TADA H.,
RA SHINOHARA T., HONJO T.;
RL GENOMICS 28:495-500(1995).
RN [3]
RP STRUCTURE BY NMR OF 22-88.
RX MEDLINE: 98046030.
RA CRUMP M.P., GONG J.H., LOETSCHER P., RAJARATHNAM K., AMARA A.,
RA ARENZANA-SEISDEDOS F., VIRELIZIER J.L., BAGGIOLINI M., SYKES B.D.,
RA CLARK-LEWIS I.;
RL EMBO J. 16:6996-7007(1997).
RN [4]
RP -1- FUNCTION: CHEMOTACTIC ACTIVE ON T-LYMPHOCYTES, MONOCYTES, BUT
CC NOT NEUTROPHILS.
CC -1- ALTERNATIVE PRODUCTS: TWO DIFFERENT FORMS (ALPHA AND BETA) ARE
CC PROBABLY GENERATED BY ALTERNATIVE SPLICING.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
CC C-X-C) (CHEMOKINE CXCL).
DR EMBL: U16752; G571508; -.
DR EMBL: I36033; G1220366; -.
DR PDB: 1SDF; 28-JAN-98.
DR PDB: 2SDF; 17-JUN-98.
DR MIM: 600835; -.
DR PROSITE: PS00471; SMALL CYTOKINES CXCL; FALSE_NEG.

KW CYTOKINE; CHEMOTAXIS; GROWTH FACTOR; SIGNAL; ALTERNATIVE SPLICING;
KW 3D-STRUCTURE. 1 19 POTENTIAL.
FT SIGNAL 20 93 STROMAL CELL-DERIVED FACTOR 1.
FT CHAIN 30 55
FT DISULFID 32 71
FT DISULFID 32 71
SO SEQUENCE 93 AA; 10666 MW; 4B9911C7 CRC32;
Query Match 77.2%; Score 78; DB 1; Length 93;
Best Local Similarity 58.3%; Pred. No. 3.72e-05;
Matches 7; Conservative 4; Mismatches 1; Indels 0; Gaps 0;
Db 69 QYCDPKLKWQ 80
OY 1 EICLDPKRWQ 12
RESULT 26
ID EOTA CAVPO STANDARD; PRT; 96 AA.
AC P80325;
DT 01-JUN-1994 (REL. 29, CREATED)
DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
GN SCYAL1.
OS CAVIA PORCELLUS (GUINEA PIG).
OC EUTHERIA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
CC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-LUNG;
RX MEDLINE; 95173589.
RA ROTHENBERG M.E., LUSTER A.D., LILLY C.M., DRAZEN J.M., LEDER P.;
RL J. EXP. MED. 181:1211-1216(1995).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE; 95091818.
RA JOSE P.J., ACCOCK I.M., GRIFFITHS-JOHNSON D.A., BERKMAN N.,
WELLS T.C., WILLIAMS T.J., POWER C.A.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 205:788-794(1994).
RN [3]
RP SEQUENCE OF 24-96.
RX STRAIN-HARTLEY; TISSUE-LUNG;
RC MEDLINE; 94157409.
RA JOSE P.J., GRIFFITHS-JOHNSON D.A., COLLINS P.D., WALSH D.T.,
MOEBEL R., TOTTY N.F., TRUONG O., HSGAN J.J., WILLIAMS T.J.;
RL J. EXP. MED. 179:881-887(1994).
RN [4]
RP FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLEGENS, THIS PROTEIN
DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT
FEATURE OF ALLERGIC INFLAMMATORY REACTIONS.
CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
CC -1- TISSUE SPECIFICITY: LUNG.
CC -1- PTM: O-GLYCOSYLATED (PROBABLE).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
CC EMBL; U18941; G687656; -.
DR EMBL; X77603; G602552; -.
DR HSSP; P13500; IMCA.
DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
KW INFLAMMATORY RESPONSE.
FT SIGNAL 1 23
FT CHAIN 24 96 EOTAXIN.
FT DISULFID 31 56 BY SIMILARITY.
FT DISULFID 32 72 BY SIMILARITY.
FT CARBOHYD 93 93 POTENTIAL.
FT CONFLICT 88 88 D -> G (IN REF. 2).
SO SEQUENCE 96 AA; 10753 MW; DD28C7B5 CRC32;
Query Match 76.2%; Score 77; DB 1; Length 96;
Best Local Similarity 81.8%; Pred. No. 6.37e-05;
Matches 9; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Db 71 ICADPKRWQ 81
OY 2 ICLDPKRWQ 12
RESULT 27
ID M1A RAT STANDARD; PRT; 92 AA.
AC P50229;
DT 01-OCT-1996 (REL. 34, CREATED)
DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
DE MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA PRECURSOR (MIP-1-ALPHA).
GN RATTUS NORVEGICUS (RAT).
OS RATTUS NORVEGICUS (RAT).
OC EUTHERIA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
CC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-CD-1; TISSUE-LUNG;
RX MEDLINE; 9528037.
RA SHI M.M., GODLESKI J.J., PAULASKIS J.D.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 211:289-295(1995).
RN [2]
RP SEQUENCE FROM N.A.
RC STRAIN-LONG EVANS; TISSUE-LUNG;
RX MEDLINE; 95238980.
RA SHANLEY T.P., SCHMAL H., FRIEDL H.P., JONES M.L., WARD P.A.;
RL J. IMMUNOL. 154:4793-4802(1995).
RN [3]
RP SEQUENCE OF 24-57.
RC STRAIN-MISTAR;
RX MEDLINE; 96183056.
RA NAKAGAWA H., SHIOYA S., TAKANO K., SHIBATA F., KATO H.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 220:945-948(1996).
RN [4]
RP FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES.
HAS CHEMOTACTIC ACTIVITY FOR MONOCYTES, NEUTROPHILS, EOSINOPHILS,
BASOPHILS, AND LYMPHOCYTES. REQUIRED FOR LUNG TNF-ALPHA
PRODUCTION, NEUTROPHIL RECRUITMENT AND SUBSEQUENT LUNG INJURY AND
MAY FUNCTION AS AN AUTOCRINE MEDIATOR FOR THE MACROPHAGE
PRODUCTION OF TNF-ALPHA WHICH IN TURN UP-REGULATES VASCULAR
ADHESION MOLECULES REQUIRED FOR NEUTROPHIL INFLUX. THIS PROTEIN
BINDS HEPARIN.
CC -1- INDUCTION: BY LIPOPOLYSACCHARIDE (LPS).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
CC EMBL; U22414; G790633; -.
DR EMBL; U06435; G459150; -.
DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL; HEPARIN-BINDING.
FT SIGNAL 1 23
FT CHAIN 24 92
FT DISULFID 34 57 MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA.
FT DISULFID 35 73 BY SIMILARITY.
FT CONFLICT 6 6 A -> T (IN REF. 2).
FT CONFLICT 57 57 C -> M (IN REF. 2 AND 3).
SO SEQUENCE 92 AA; 10335 MW; F48CF89F CRC32;
Query Match 75.2%; Score 76; DB 1; Length 92;
Best Local Similarity 66.7%; Pred. No. 1.09e-04;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;
Db 71 QICADPKRWQ 82
OY 1 EICLDPKRWQ 12
RESULT 28
ID MCPB BOVIN STANDARD; PRT; 74 AA.
AC P80343;
DT 01-FEB-1995 (REL. 31, CREATED)
DT 01-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1B (MCP-1B) (FRAGMENT).

OS BOS TAURUS (BOVINE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; ARTIODACTYLA.
 RN [1]
 RP SEQUENCE.
 RC TISSUE-KIDNEY;
 RX MEDLINE: 95034774.
 RA PROOST P., WUYTS A., LENARTS J.-P., VAN DAMME J.;
 RL BIOCHEMISTRY 33:13406-13412(1994).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
 CC NEUTROPHILS. AUGMENTS MONOCYTE ANTI-TUMOR ACTIVITY. ALSO INDUCES
 CC THE RELEASE OF GELATINASE B. THIS PROTEIN CAN BIND HEPARIN.
 CC -1- PTM: THE N-TERMINAL IS BLOCKED.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOTAXIS; HEPARIN-BINDING.
 FT NON_TER 1 1
 FT DISULFID 9 34 BY SIMILARITY.
 FT DISULFID 10 50 BY SIMILARITY.
 SQ SEQUENCE 74 AA; 8360 MW; 66172F08 CRC32;
 Query Match 74.3%; Score 75; DB 1; Length 74;
 Best Local Similarity 66.7%; Pred. No. 1.85e-04;
 Matches 8; Conservative 1; Mismatches 3; Indels 0; Gaps 0;
 Db 48 EICLDPKXWV 59
 Oy 1 EICLDPKXWV 12
 RESULT 29
 ID MCP2_HUMAN STANDARD; PRT; 99 AA.
 AC P80075; P78388;
 DT 01-DEC-1992 (REL. 24, CREATED)
 DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
 DE CHEMOTACTICANT PROTEIN 2) (HC14).
 GN SCY18 OR SCY10 OR MCP2.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A., AND VARIANT GLN-69.
 RX MEDLINE: 97237052.
 RA VAN COILLIE E., FITTEN P., NOMIYAMA H., SAKAKI Y., MIURA R., YOSHIE O.,
 RA VAN DAMME J., OPDENAKKER G.;
 PL GENOMICS 40:323-331(1997).
 RN [2]
 RP SEQUENCE FROM N.A., AND VARIANT GLN-69.
 RC TISSUE-BONE MARROW;
 RX MEDLINE: 97224420.
 RA VAN COILLIE E., FROYEN F., NOMIYAMA H., MIURA R., FITTEN P.,
 RA VAN AELST I., VAN DAMME J., OPDENAKKER G.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 231:726-730(1997).
 RN [3]
 RP SEQUENCE OF 23-99 FROM N.A.
 RX MEDLINE: 91207938.
 RA CHANG H.-C., HSU F., FREEMAN G.J., GRIFFIN J.D., REINHERZ E.L.;
 RL INT. IMMUNOL. 1:388-399(1989).
 RN [4]
 RP SEQUENCE OF 26-99.
 RC TISSUE-OSTEOSARCOMA;
 RX MEDLINE: 92308855.
 RA VAN DAMME J., PROOST P., LENARTS J.-P., OPDENAKKER G.;
 RL J. EXP. MED. 176:59-65(1992).
 RN [5]
 RP SUBUNIT.
 RX MEDLINE: 97053697.
 RA KIM K.-S., RAJANATHNAM K., CLARK-LEWIS I., SYKES B.D.;
 RL FEBS LETT. 395:277-282(1996).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, LYMPHOCYTES,

CC BASOPHILS AND EOSINOPHILS. MAY PLAY A ROLE IN NEOPLASIA AND
 CC INFLAMMATORY HOST RESPONSES. THIS PROTEIN CAN BIND HEPARIN.
 CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM.
 CC -1- TISSUE SPECIFICITY: HIGHEST EXPRESSION FOUND IN THE SMALL
 CC INTESTINE AND PERIPHERAL BLOOD CELLS. INTERMEDIATE LEVELS SEEN IN
 CC THE HEART, PLACENTA, LUNG, SKELETAL MUSCLE, THYMUS, COLON, OVARY,
 CC SPINAL CORD AND PANCREAS. LOW LEVELS SEEN IN THE BRAIN, LIVER,
 CC SPLEEN AND PROSTATE.
 CC -1- INDUCTION: BY INTERFERON GAMMA, MITOGENS AND INTERLEUKIN-1.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL: X99886; E279930; ALT_INIT.
 DR HSSP: Y10802; E294088; --
 DR HSSP: P13500; IMCA.
 DR MIM: 602283; --
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOTAXIS; SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE;
 KM POLYMORPHISM.
 FT SIGNAL 1 23 PROBABLE.
 FT CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 2.
 FT MOD_RES 24 24 PYROGLUTAMIC CARBOXYLIC ACID.
 FT DISULFID 34 59 BY SIMILARITY.
 FT DISULFID 35 75 BY SIMILARITY.
 FT VARIANT 69 69 K -> Q.
 SQ SEQUENCE 99 AA; 11246 MW; 5DD5C20 CRC32;
 Query Match 74.3%; Score 75; DB 1; Length 99;
 Best Local Similarity 58.3%; Pred. No. 1.85e-04;
 Matches 7; Conservative 4; Mismatches 1; Indels 0; Gaps 0;
 Db 73 EYCADPKRERV 84
 Oy 1 EICLDPKXWV 12
 RESULT 30
 ID MIP4_HUMAN STANDARD; PRT; 89 AA.
 AC P55774;
 DT 01-NOV-1997 (REL. 35, CREATED)
 DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MACROPHAGE INFLAMMATORY PROTEIN 4 PRECURSOR (MIP-4) (PULMONARY AND
 DE ACTIVATION-REGULATED CHEMOKINE) (CC CHEMOKINE PARC) (ALTERNATIVE
 DE ACTIVATED MACROPHAGE ASSOCIATED CC CHEMOKINE 1) (AMAC-1).
 GN SCY18 OR MIP4.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA LI H., RUBEN S.;
 RL PATENT NUMBER US5504003.
 RN [2]
 RP SEQUENCE FROM N.A., AND PARTIAL SEQUENCE.
 RC TISSUE-AORTA, AND LUNG;
 RX MEDLINE: 97376836.
 RA HIESHIMA K., IMAI T., BABA M., SHOODAI K., ISHIZUKA K.,
 RA NAKAGAWA T., TSURUTA J., TAKEYA M., SAKAKI Y., TAKATSURI K.,
 RA MIURA R., OPDENAKKER G., VAN DAMME J., YOSHIE O., NOMIYAMA H.;
 RL J. IMMUNOL. 159:1140-1149(1997).
 RN [3]
 RP SEQUENCE FROM N.A.
 RA KODELJA V., MOELLER C., POLITZ O., HARTY N., ORRANOS C.E., GOERDT S.;
 RL SUBMITTED (AUG-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [4]
 RP DISCUSSION OF SEQUENCE.
 RX MEDLINE: 97275308.
 RA WELLS T.N.C., PEITSCH M.C.;
 RL J. LEUKOC. BIOL. 61:345-350(1997).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS LYMPHOCYTES BUT NOT
 CC MONOCYTES OR GRANULOCYTES. MAY BE INVOLVED IN B CELL MIGRATION
 CC INTO B CELL FOLLICLES IN LYMPH NODES.
 CC -1- TISSUE SPECIFICITY: EXPRESSED AT HIGH LEVELS IN THE LUNG. A LOWER

LEVEL EXPRESSION IS SEEN IN LYMPHOID TISSUES SUCH AS LYMPH NODES,
 THYMUS AND APPENDIX.
 CC -I- INDUCTION: BY LIPOPOLYSACCHARIDE (LPS).
 CC -I- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 C-C) (CHEMOKINE CC).
 CC EMBL: AB000221; D1022520; -.
 DR EMBL: Y13710; E321838; -.
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
 FT SIGNAL 1 20
 FT CHAIN 21 89 MACROPHAGE INFLAMMATORY PROTEIN 4.
 FT DISULFID 30 54 BY SIMILARITY.
 FT DISULFID 31 70 BY SIMILARITY.
 SQ SEQUENCE 89 AA; 9849 MW; 052AA3DC CRC32;

Query Match 73.3%; Score 74; DB 1; Length 89;
 Best Local Similarity 66.7%; Pred. No. 3.14e-04;
 Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

DB 68 QICADPNKKWQ 79
 :|||:||||
 QY 1 EICLDPKQKWWQ 12

Search completed: Thu Apr 1 07:33:57 1999
 Job time : 9 secs.

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Msrch_pp protein - protein database search, using Smith-Waterman algorithm

Run on: Thu Apr 1 07:34:15 1999; MasPar time 4.93 Seconds

Tabular output not generated. 134.420 Million cell updates/sec

Title: >US-08-927-939-10

Description: (1-12) from US08927939.pep

Perfect Score: 101

Sequence: 1 EICLDPRQKRWQ 12

Scoring table: PAM 150

Gap 15

Searched: 180763 segs, 55169189 residues

Post-processing: Minimum Match 0%

Listing first 100 summaries

Database: sptrembl8

1:sp-archaea 2:sp-bacteria 3:sp-fungi 4:sp-human

5:sp-invertebrate 6:sp-mammal 7:sp-mhc 8:sp-organelle

9:sp-phage 10:sp-plant 11:sp-rodent 12:sp-unclassified

13:sp-vertebrate 14:sp-virus

Statistics: Mean 25.692; Variance 33.643; scale 0.764

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB	ID	Description	Pred. No.
1	79	78.2	97	6	062812	INTERLEUKIN-8 (FRAGMEN	5.88e-05
2	74	73.3	97	13	057411	LYMPHOTACTIN PRECURSOR	8.15e-04
3	74	73.3	395	11	035188	NEUTROTACTIN.	8.15e-04
4	74	73.3	395	11	035933	FRCTALIN.	8.15e-04
5	70	63.3	119	4	000175	MPF-2.	6.31e-03
6	69	63.3	97	11	083093	CC CHEMOKINE ST38 PREC	1.04e-02
7	69	63.3	134	4	000585	BETA CHEMOKINE EXODUS-	1.04e-02
8	68	67.3	92	11	088430	CC CHEMOKINE ABCD-1.	1.72e-02
9	68	67.3	109	11	055038	B LYMPHOCYTE CHEMOKIN	1.72e-02
10	67	63.3	104	13	073912	K60 PROTEIN PRECURSOR	2.82e-02
11	65	64.4	80	4	014745	LD78 ALPHA BETA PRECUR	7.51e-02
12	65	64.4	95	4	093664	CC CHEMOKINE EXODUS.	7.51e-02
13	65	64.4	96	11	097884	CC CHEMOKINE EXODUS.	7.51e-02
14	65	64.4	120	4	015447	IL-10-INDUCIBLE CHEMO	7.51e-02
15	63	62.4	101	13	093442	LFCA-1 PROTEIN PRECURS	1.97e-01
16	62	61.4	101	13	093238	CC CHEMOKINE-1.	3.16e-01
17	61	60.4	91	4	043646	RANTES PRECURSOR.	5.06e-01
18	61	60.4	109	4	043927	CXC CHEMOKINE PRECURSO	5.06e-01
19	60	59.4	95	14	098158	ORF K6.	8.07e-01
20	60	59.4	203	14	067634	ECO Q PROTEIN (FRAGMEN	8.07e-01

21	59.4	397	4	P78423	CXC CHEMOKINE PRECURS	8.07e-01
22	58.4	93	4	000626	MACROPHAGE-DERIVED CHE	1.28e+00
23	58.4	133	11	009006	BETA CHEMOKINE EXODUS-	1.28e+00
24	58.4	133	11	009002	SMALL INDUCIBLE CYTOKI	1.28e+00
25	58.4	584	5	002426	SMALL HOMOLOG.	1.28e+00
26	57.4	535	10	082387	PUTATIVE CELL DIVISION	2.02e+00
27	56.4	201	11	P70357	PLASMA RETINOL-BINDING	3.17e+00
28	56.4	331	5	017348	H42R12.2 PROTEIN.	3.17e+00
29	56.4	760	3	099126	CHITIN SYNTHETASE 1.	3.17e+00
30	55.4	158	10	064975	PUTATIVE DISEASE RESIS	4.95e+00
31	55.4	192	10	023536	RESISTANCE GENE HOMO	4.95e+00
32	55.4	281	3	006657	CHROMOSOME IV COSMID 9	4.95e+00
33	55.4	363	7	030870	MHC CLASS I A.	4.95e+00
34	55.4	363	7	093394	MHC CLASS I PROTEIN MO	4.95e+00
35	55.4	629	5	P91819	RNA POLYMERASE II LANG	4.95e+00
36	55.4	1361	10	004264	DONNY MILDENW RESISTAN	4.95e+00
37	54.5	145	2	P74671	HYPOHETICAL 16.6 KD P	7.70e+00
38	54.5	806	13	093599	TRANSCRIPTION FACTOR	7.70e+00
39	54.5	899	4	013527	PROHORMONE CONVERTASE	7.70e+00
40	54.5	915	4	028824	PC6A PROTEASE.	7.70e+00
41	54.5	1186	14	055767	PUTATIVE TYROSINE PROT	7.70e+00
42	54.5	172	2	051136	H11054 HOMOLOG (FRAGME	1.19e+01
43	54.5	187	2	083516	HYPOHETICAL 21.4 KD P	1.19e+01
44	54.5	188	5	045136	C05D2.8 PROTEIN.	1.19e+01
45	54.5	230	14	067245	NS1.	1.19e+01
46	54.5	399	14	068409	ORE UL154.	1.19e+01
47	54.5	475	4	060646	HYPOHETICAL 53.8 KD P	1.19e+01
48	54.5	749	13	093598	TRANSCRIPTION FACTOR.	1.19e+01
49	54.5	767	13	013133	STAT3.	1.19e+01
50	54.5	862	4	099665	IL-12 RECEPTOR BETA2.	1.19e+01
51	54.5	1130	14	088282	ENVELOPE PROTEIN.	1.19e+01
52	54.5	2276	4	075050	KIA0462 PROTEIN (FRAG	1.19e+01
53	54.5	148	14	082745	(STRAIN LWRT 60-1	1.83e+01
54	54.5	152	2	052895	HYPOHETICAL 17.5 KD P	1.83e+01
55	54.5	152	2	045956	ORF 152B.	1.83e+01
56	54.5	167	7	046767	MHC CLASS I HEAVY CHAI	1.83e+01
57	54.5	227	14	009683	NONSTRUCTURAL PROTEIN	1.83e+01
58	54.5	230	14	082807	NONSTRUCTURAL PROTEIN	1.83e+01
59	54.5	230	14	092560	NONSTRUCTURAL PROTEIN	1.83e+01
60	54.5	230	14	067261	NONSTRUCTURAL PROTEIN	1.83e+01
61	54.5	328	2	025855	HYPOHETICAL 37.2 KD P	1.83e+01
62	54.5	334	7	030770	MHC CLASS I ALLELE SHN	1.83e+01
63	54.5	642	2	009029	REP PROTEIN (REPLICATI	1.83e+01
64	54.5	947	4	060334	KIA00593 PROTEIN (FRAG	1.83e+01
65	54.5	982	5	093290	HYPOHETICAL PROTEIN C	1.83e+01
66	54.5	1089	5	026155	V-SERA 1.	1.83e+01
67	54.5	1142	4	014324	FAST MBP-C.	1.83e+01
68	54.5	1589	5	045569	FSAR11.2.	1.83e+01
69	54.5	3587	2	030408	TYROCIDINE SYNTHETASE	1.83e+01
70	54.5	75	4	000228	PGAM-B (FRAGMENT).	2.79e+01
71	54.5	120	7	046784	MHC CLASS I HEAVY CHAI	2.79e+01
72	54.5	147	7	046723	MHC CLASS I HEAVY CHAI	2.79e+01
73	54.5	166	7	046720	MHC CLASS I HEAVY CHAI	2.79e+01
74	54.5	166	7	046734	MHC CLASS I HEAVY CHAI	2.79e+01
75	54.5	166	7	046743	MHC CLASS I HEAVY CHAI	2.79e+01
76	54.5	167	7	046765	MHC CLASS I HEAVY CHAI	2.79e+01
77	54.5	167	7	046716	MHC CLASS I HEAVY CHAI	2.79e+01
78	54.5	167	7	046756	MHC CLASS I HEAVY CHAI	2.79e+01
79	54.5	167	7	046781	MHC CLASS I HEAVY CHAI	2.79e+01
80	54.5	167	7	046724	MHC CLASS I HEAVY CHAI	2.79e+01
81	54.5	167	7	046715	MHC CLASS I HEAVY CHAI	2.79e+01
82	54.5	167	7	046713	MHC CLASS I HEAVY CHAI	2.79e+01
83	54.5	167	7	046761	MHC CLASS I HEAVY CHAI	2.79e+01
84	54.5	167	7	046766	MHC CLASS I HEAVY CHAI	2.79e+01
85	54.5	167	7	078058	MHC CLASS I HEAVY CHAI	2.79e+01
86	54.5	167	7	046719	MHC CLASS I HEAVY CHAI	2.79e+01
87	54.5	167	7	046755	MHC CLASS I HEAVY CHAI	2.79e+01
88	54.5	167	7	046754	MHC CLASS I HEAVY CHAI	2.79e+01
89	54.5	209	1	029680	CONSERVED HYPOHETICAL	2.79e+01
90	54.5	257	11	088827	PLASMA CELL MEMBRANE	2.79e+01
91	54.5	282	2	096965	2-HYDROXY-6-OXO-7-METH	2.79e+01
92	54.5	343	7	078034	MHC CLASS I HEAVY CHAI	2.79e+01
93	54.5	353	7	030236	MHC CLASS I ARI0 MRNA	2.79e+01

94 52 51.5 357 7 030483 MHC CLASS I HEAVY CHAI
95 52 51.5 362 7 030304 MHC CLASS I LYMPHOCYTE
96 52 51.5 425 10 004007 PHYTOENE SYNTHASE.
97 52 51.5 517 2 050018 COSMID B1764.
98 52 51.5 1014 5 026152 V-SERA 2.
99 52 51.5 1224 5 P91309 CODED FOR BY C. ELEGAN
100 52 51.5 2919 14 085431 RNA POLYMERASE. 2.79e+01

ALIGNMENTS

RESULT 1
ID 062812 PRELIMINARY; PRT; 97 AA.
AC 062812;
DT 01-AUG-1998 (TREMBLREL. 07, CREATED)
DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
DE 01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
GN INTERLEUKIN-8 (FRAGMENT).
OS IL-8.
OS EQUUS CABALLUS (HORSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
OC PERISSODACTYLIA; EQUIDAE; EQUUS.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-BRONCHOALVEOLAR TISSUE.
RA FRANCHINI M.;
RL SUBMITTED (APR-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: AF062377; G3126973; -.
FT NON_TER 97
SQ SEQUENCE 97 AA; 10742 MW; 00396FBF CRC32;

Query Match 78.2%; Score 79; DB 6; Length 97;
Best Local Similarity 66.7%; Pred. No. 5.88e-05;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 75 EVCLNPHKRWQ 86
1 : : : : :
QY 1 ICIDPKKRWQ 12

RESULT 2
ID 057411 PRELIMINARY; PRT; 97 AA.
AC 057411;
DT 01-JUN-1998 (TREMBLREL. 06, CREATED)
DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
DT 01-JUN-1998 (TREMBLREL. 06, LAST ANNOTATION UPDATE)
DE LYMPHOTACTIN PRECURSOR.
OS GALLUS GALLUS (CHICKEN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; ARCHOSAURIA; AVES;
OC NEOGNATHAE; GALLIFORMES; PHASIANIDAE; PHASIANINAE; GALLUS.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-SPLEEN;
RA ROSSI D.L., BAZAN J.F., ZLOTNIK A.;
RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: AF006742; G2827882; -.
KW SIGNAL.
FT SIGNAL 1 24
FT CHAIN 25 97 LYMPHOTACTIN.
SQ SEQUENCE 97 AA; 11131 MW; 3290101C CRC32;

Query Match 73.3%; Score 74; DB 13; Length 97;
Best Local Similarity 72.7%; Pred. No. 8.15e-04;
Matches 8; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 72 ICVHPKRWQ 82
1 : : : : :
QY 2 ICIDPKKRWQ 12

RESULT 3
ID 035188 PRELIMINARY; PRT; 395 AA.
AC 035188;

DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE NEUROTECTIN.
GN SCYD1.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCUROGNATHI; MORIDAE; MORINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 97320499.
RA PAN Y., CLARE L., HONG Z., DOLICH S., DEEDS J., GONZALO J., VATH J.,
RA GOSSELIN M., MA J., DISSAULT B., WOOLF B., ALPERIN A., CULPEPPER J.,
RA GUTIERREZ-RAMOS J.C., GEAKING D.;
RT "Neurotactin, a membrane-anchored chemokine upregulated in brain
inflammation.";
RL NATURE 387:611-617(1997).
DR EMBL: AF010586; G2317698; -.
DR MGD; MGI:1097153; SCYD1.
DR PFAM; PF00048; 118; 1.
SQ SEQUENCE 395 AA; 42098 MW; E3CD0612 CRC32;

Query Match 73.3%; Score 74; DB 11; Length 395;
Best Local Similarity 72.7%; Pred. No. 8.15e-04;
Matches 8; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 73 FCADPKRWQ 83
1 : : : : :
QY 2 ICIDPKKRWQ 12

RESULT 4
ID 035933 PRELIMINARY; PRT; 395 AA.
AC 035933;
DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE FRACTALKINE.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; RODENTIA;
OC SCUROGNATHI; MURIDAE; MORINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-BALB/C; TISSUE-BRAIN;
RA ROSSI D., HARDMAN G., COPELAND N., GILBERT D.J., JENKINS N.,
RA ZLOTNIK A., BAZAN J.F.;
RL SUBMITTED (MAR-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: U92565; G2459677; -.
DR PRAM; PF00048; 118; 1.
SQ SEQUENCE 395 AA; 42040 MW; 3997A113 CRC32;

Query Match 73.3%; Score 74; DB 11; Length 395;
Best Local Similarity 72.7%; Pred. No. 8.15e-04;
Matches 8; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 73 FCADPKRWQ 83
1 : : : : :
QY 2 ICIDPKKRWQ 12

RESULT 5
ID 000175 PRELIMINARY; PRT; 119 AA.
AC 000175;
DT 01-JUL-1997 (TREMBLREL. 04, CREATED)
DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE MPF-2.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RA PATEL V.P., KREIDER B.L., LI Y., LI H., LEUNG K., SALCEDO T.,

RA NARDELLI B., PIPPAIA V., GENTZ S., THOTAKURA R., PARMELEE D.,
 RA GENTZ R., GAROTTA G.,
 RL J. EXP. MED. 0:0-0(0).
 DR EMBL: U85768; G1916252; -.
 DR PFAM: PF00048; 118; 1.
 SQ SEQUENCE 119 AA; 13119 MW; CDF526F0 CRC32;

Query Match 69.3%; Score 70; DB 4; Length 119;
 Best Local Similarity 66.7%; Pred. No. 6.31e-03;
 Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 72 QCGDPRKQWV 83
 QY 1 EICLDPKQKQW 12

RESULT 6 PRELIMINARY; PRT: 97 AA.
 ID 089093
 AC 089093;
 DT 01-NOV-1998 (TREMBLER. 08, CREATED)
 DT 01-NOV-1998 (TREMBLER. 08, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLER. 08, LAST ANNOTATION UPDATE)
 DE CC CHEMOKINE ST38 PRECURSOR.
 GN LARC.
 OS MUS MUSCULUS (MOUSE).
 CC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
 OC RODENTIA; SCIUROGNATHI; MORIDAE; MURINAE; MUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA UTMANS-SCHNEITZ U., LOREZ H., KLINKERT W.E.F., DA SILVA J.,
 RA LESSLAUER W.,
 RT "A novel rat CC chemokine, identified by targeted differential
 display, is upregulated in brain inflammation.";
 RL J. NEUROIMMUNOL. 0:0-0(1998).
 RN [2]
 RP SEQUENCE FROM N.A.
 RA VILLARES R.,
 RL SUBMITTED (JUL-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: AF053313; G3551819; -.
 DR EMBL: AJ007862; E1312757; -.
 KW SIGNAL.
 FT SIGNAL 1 27 POTENTIAL.
 FT CHAIN 28 97 CC CHEMOKINE ST38.
 SQ SEQUENCE 97 AA; 10826 MW; 053405BD CRC32;

Query Match 68.3%; Score 69; DB 11; Length 97;
 Best Local Similarity 70.0%; Pred. No. 1.04e-02;
 Matches 7; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 74 VCADPKQWV 83
 QY 2 ICLDPKQKQW 11

RESULT 7 PRELIMINARY; PRT: 134 AA.
 ID 000585
 AC 000585;
 DT 01-JUL-1997 (TREMBLER. 04, CREATED)
 DT 01-JUL-1997 (TREMBLER. 04, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLER. 08, LAST ANNOTATION UPDATE)
 DE BETA CHEMOKINE EXODUS-2.
 OS HOMO SAPIENS (HUMAN).
 CC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
 OC CATARRHINI; HOMINIDAE; HOMO.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA HROMAS R.A., GRAY P., KLEMSZ M., FIFE K., BROCKMEYER H.,
 RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 97400322.
 RA HEDRICK J.A., ZLOTNIK A.,
 RT "Identification and characterization of a novel beta chemokine

RT containing six conserved cysteines.";
 RL J. IMMUNOL. 159:1589-1593(1997).
 RN [3]
 RP SEQUENCE FROM N.A.
 RA HEDRICK J.A., ZLOTNIK A.,
 RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [4]
 RP SEQUENCE FROM N.A.

RA NAGIRA M., IMAI T., HIESHIMA K., KUSUDA J., RIDANPAA M., TAKAGI S.,
 RA NISHIMURA M., KAKIZAKI M., NOMIYAMA H., YOSHIE O.,
 RL SUBMITTED (AUG-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: U88320; G2196920; -.
 DR EMBL: AF001979; G2624925; -.
 DR EMBL: AB002409; D1022673; -.
 DR PFAM: PF00048; 118; 1.
 SQ SEQUENCE 134 AA; 14646 MW; FE86A239 CRC32;

Query Match 68.3%; Score 69; DB 4; Length 134;
 Best Local Similarity 66.7%; Pred. No. 1.04e-02;
 Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 73 ELCDPRKQWV 84
 QY 1 EICLDPKQKQW 12

RESULT 8 PRELIMINARY; PRT: 92 AA.
 ID 088430
 AC 088430;
 DT 01-NOV-1998 (TREMBLER. 08, CREATED)
 DT 01-NOV-1998 (TREMBLER. 08, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLER. 08, LAST ANNOTATION UPDATE)
 DE CC CHEMOKINE ABCD-1.
 OS MUS MUSCULUS (MOUSE).
 CC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
 OC RODENTIA; SCIUROGNATHI; MORIDAE; MURINAE; MUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA TISSUE-LIVER.
 RX MEDLINE: 98353531.
 RA SCHANTEL C., PARDALI E., SALUSTO F., SPELETAS M., RUEDL C.,
 RA SHIMIZU T., SEIDL T., ANDERSSON J., MELCHERS F., ROLINK A.G.,
 RA SIDERAS P.,
 RT "Activated murine B lymphocytes and dendritic cells produce a novel
 CC chemokine which acts selectively on activated T cells.";
 RL J. EXP. MED. 188:451-463(1998).
 DR EMBL: AF052505; G3378116; -.
 SQ SEQUENCE 92 AA; 10302 MW; BC7219A0 CRC32;

Query Match 67.3%; Score 68; DB 11; Length 92;
 Best Local Similarity 63.6%; Pred. No. 1.72e-02;
 Matches 7; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 74 DICADPRQWV 84
 QY 1 EICLDPKQKQW 11

RESULT 9 PRELIMINARY; PRT: 109 AA.
 ID 055038
 AC 055038;
 DT 01-JUN-1998 (TREMBLER. 06, CREATED)
 DT 01-JUN-1998 (TREMBLER. 06, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLER. 08, LAST ANNOTATION UPDATE)
 DE B LYMPHOCYTE CHEMOATTRACTANT BLC.
 OS MUS MUSCULUS (MOUSE).
 CC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
 OC SCIUROGNATHI; MORIDAE; MURINAE; MUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-C57BL/6J.
 RX MEDLINE: 98146056.
 RA GUNN M.D., NGO V.N., ANSEL K.M., EKLAND E.H., CYSTER J.G.,

Best Local Similarity 70.0%; Pred. No. 7.51e-02;
Matches 7; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 73 VCADPKQIWN 82
:|||||
OY 2 ICLDPKQKVV 11

RESULT 14
ID 015467; PRELIMINARY; PRT; 120 AA.

DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE IL-10-INDUCIBLE CHEMOKINE.

GN ILINCK OR SCYA16.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.

RP [1] SEQUENCE FROM N.A.
RA HEDRICK J.A., GORMAN D., ZLOTNIK A.;
RL SUBMITTED (NOV-1997) TO EMBL/GENBANK/DBJ DATA BANKS.

RP [2] SEQUENCE FROM N.A.
RC TISSUE-LAYER;
RA SHODAI K., HIESHIMA K., FUKUDA S., ITO M., MIURA R., IMAI T.,
RA YOSHIDA O., NOMIYAMA H.;
RL BIOCHIM. BIOPHYS. ACTA 0:0-0(1998).

RP [3] SEQUENCE FROM N.A.
RA NOMIYAMA H.;
RT "Structure of a region of 181 kb containing five CC chemokine genes.";
RL SUBMITTED (AUG-1998) TO EMBL/GENBANK/DBJ DATA BANKS.

RP [4] SEQUENCE FROM N.A.
RX MEDLINE: 98308096.
RA YOUN B.S., ZHANG S., BROXMEYER H.E., ANTOL K., FRASER M.J. JR.,
RT "Isolation and characterization of LMC, a novel lymphocyte and
RT monocytic chemottractant human CC chemokine, with myelosuppressive
RT activity.";
RL BIOCHEM. BIOPHYS. RES. COMMUN. 247:217-222(1998).

DR EMBL: U91746; G2581781; -;
DR EMBL: AB007454; D1024963; -;
DR EMBL: AF088219; G3719365; -;
DR EMBL: AF055467; G3395776; -;
DR PFAM: PF00048; 118; 1.

KW SIGNAL.
SQ SEQUENCE 120 AA; 13600 MW; A079DF66 CRC32;

Query Match 64.4%; Score 65; DB 4; Length 120;
Best Local Similarity 50.0%; Pred. No. 7.51e-02;
Matches 6; Conservative 4; Mismatches 2; Indels 0; Gaps 0;

Db 74 EYCTNPNDWVQ 85
:|:|:|:|:|
OY 1 EICLDPKQKVVQ 12

RESULT 15
ID 093442; PRELIMINARY; PRT; 101 AA.

DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE LFCA-1 PROTEIN PRECURSOR.

OS LAMPETRA FLUVIATILIS (RIVER LAMPREY).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; CEPHALASPIDOMORPHI;
OC PETROMYZONTIFORMES; PETROMYZONTIDAE; LAMPETRA.

RP [1] SEQUENCE FROM N.A.
RC TISSUE-LEUKOCYTES.

RA NAKAKSHIN A.M., MECHETINA L.V., ALABEV B.Y., TARANIN A.V.;
RT "Identification of the interleukin 8 homologue in lamprey (Lampetra
RT fluviatilis): early evolutionary divergence of chemokines.";
RL SUBMITTED (JUL-1998) TO EMBL/GENBANK/DBJ DATA BANKS.

DR EMBL: AJ231072; E1313821; -;
KW SIGNAL.
FT SIGNAL. 1 22 POTENTIAL.
FT CHAIN 23 101 LFCA-1 PROTEIN.
SQ SEQUENCE 101 AA; 11095 MW; EA1E20F CRC32;

Query Match 62.4%; Score 63; DB 13; Length 101;
Best Local Similarity 50.0%; Pred. No. 1.97e-01;
Matches 6; Conservative 3; Mismatches 3; Indels 0; Gaps 0;

Db 73 QICLPDAPWVR 84
:|||||
OY 1 EICLDPKQKVVQ 12

RESULT 16
ID 093238; PRELIMINARY; PRT; 101 AA.

DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE CC CHEMOKINE-1.

OS CYPRINUS CARPIO (COMMON CARP).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; ACTINOPTERYGII; NEOPTERYGII;
OC TELEOSTEI; EUTELEOSTEI; OSTARIOPHYSI; CYPRINIFORMES; CYPRINOIDEA;
OC CYPRINIDAE; CYPRININAE; CYPRINUS.

RP [1] SEQUENCE FROM N.A.
RA FUJIKI K., NAKAO M., SHIN D., YANO T.;
RT "cDNA cloning of a carp CC chemokine homologous to mammalian
RT eotaxins.";
RL SUBMITTED (JAN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.

DR EMBL: AB010469; D1032417; -;
SQ SEQUENCE 101 AA; 11266 MW; 9CFBD540 CRC32;

Query Match 61.4%; Score 62; DB 13; Length 101;
Best Local Similarity 63.6%; Pred. No. 3.16e-01;
Matches 7; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 72 EFCSDPKLWV 82
:|:|:|:|:|
OY 1 EICLDPKQKVV 11

RESULT 17
ID 043646; PRELIMINARY; PRT; 91 AA.

DT 01-JUN-1998 (TREMBLREL. 06, CREATED)
DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE RANTES PRECURSOR.

OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.

RP [1] SEQUENCE FROM N.A.
RA JANG J.S., KIM B.E.;
RL SUBMITTED (JAN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.

RT "Structure of a region of 181 kb containing five CC chemokine genes.";
RL SUBMITTED (AUG-1998) TO EMBL/GENBANK/DBJ DATA BANKS.

DR EMBL: AF043341; G2905632; -;
DR EMBL: AF088219; G3719366; -;
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW SIGNAL.
FT SIGNAL. 1 23 POTENTIAL.

```

FT CHAIN 24 91 RANTES-
SQ SEQUENCE 91 AA: 9990 MM: CF404FAD CRC32:
Query Match 60.4%; Score 61; DB 4; Length 91;
Best Local Similarity 41.7%; Pred. No. 5,06e-01;
Matches 5; Conservative 4; Mismatches 3; Indels 0; Gaps 0;

Db 71 QVCANPEKKWR 82
:|:|:|:|:
QY 1 EICLDPKQKQWQ 12

RESULT 18
ID 043927; PRELIMINARY; PRT: 109 AA.
AC 043927;
DT 01-JUN-1998 (TREMBLREL. 06, CREATED)
DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE CXC CHEMOKINE PRECURSOR.
CN BCL-1
OS HOMO SAPIENS (HUMAN).
OC EUAROTIA; METAEOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE; 98130629.
RA LEBLER D.F., LOETSCHER M., STUBER ROOS R., CLARK-LEWIS I.,
RA BAGGIOLINI M., MOSER B.;
RT "B cell-attracting chemokine 1, a human CXC chemokine expressed in
RT lymphoid tissues, selectively attracts B lymphocytes via BLR1/CXCR5.";
RL J. EXP. MED. 187:655-660(1998).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE; 9816056.
RA GUNN M.D., NGO V.N., ANSEL K.M., EKLAND E.H., CYSTER J.G.,
RA WILLIAMS L.T.;
RT "A B-cell-homing chemokine made in lymphoid follicles activates
RT Burkitt's lymphoma receptor-1.";
RL NATURE 391:795-803(1998).
RN [3]
RP SEQUENCE FROM N.A.
RA NAPOLITANO M., SPINETTI G., GAETANO C., CAPOGROSSI C.M.;
RL SUBMITTED (OCT-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; AF0402211; E12493325; -
DR EMBL; AF044137; G2911376; -
DR EMBL; AF029894; G3169814; -
KW SIGNAL.
FT SIGNAL. 1 22 POTENTIAL.
FT CHAIN 23 109 POTENTIAL.
SQ SEQUENCE 109 AA: 12664 MM: BESAA6BC CRC32:

Query Match 60.4%; Score 61; DB 4; Length 109;
Best Local Similarity 45.5%; Pred. No. 5,06e-01;
Matches 5; Conservative 3; Mismatches 3; Indels 0; Gaps 0;

Db 75 VCVDPQAEWQ 85
:|:|:|:|:
QY 2 ICLDPKQKQWQ 12

RESULT 19
ID 098158; PRELIMINARY; PRT: 95 AA.
AC 098158; 012569;
DT 01-FEB-1997 (TREMBLREL. 02, CREATED)
DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE ORF K6.
OS KAPOSI'S SARCOMA-ASSOCIATED HERPESVIRUS.
OC VIRUSES; DSDNA VIRUSES, NO RNA STAGE; HERPESVIRIDAE;
OC GAMMAHERPESVIRINAE; RHADINOVIRUS.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE; 97094384.

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RA MOORE P.S., BASHOFF C., WEISS R.A., CHANG Y.;
RT "Molecular mimicry of human cytokine and cytokine response pathway
RT genes by KSHV.";
RL SCIENCE 274:1739-1744(1996).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE; 97121480.
RA RUSSO J.T., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
RA PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
RT "Nucleotide sequence of the Kaposi sarcoma-associated herpesvirus
RT (HHV8).";
RL PROC. NATL. ACAD. SCI. U.S.A. 93:14862-14867(1996).
RN [3]
RP SEQUENCE FROM N.A.
RA RUSSO J.T., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
RA PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
RL SUBMITTED (OCT-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [4]
RP SEQUENCE FROM N.A.
RA NICHOLAS J., RUVOLO V.R., BURNS W.H., SANFORD G., WAN X., CIUFFO D.,
RA HENDRICKSON S., GUO H.G., HAYWARD G.S., REITZ M.S.;
RL SUBMITTED (NOV-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [5]
RP SEQUENCE FROM N.A.
RA RUSSO J.T., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
RA PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [6]
RP SEQUENCE FROM N.A.
RX MEDLINE; 97296220.
RA NEIPEL F., ALBRECHT J.C., FLECKENSTEIN B.;
RT "Cell-homologous genes in the Kaposi's sarcoma-associated rhadinovirus
RT human herpesvirus 8: determinants of its pathogenicity?";
RL J. VIROL. 71:4187-4192(1997).
RN [7]
RP SEQUENCE FROM N.A.
RA SUN R., LIN S.-F., MILLER G.;
RL SUBMITTED (SEP-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; U75698; G1718266; -
DR EMBL; U74585; G1658273; -
DR EMBL; U93872; G2246546; -
DR EMBL; U71366; G3551763; -
DR PFAM; PF00048; I18; 1.
KW HYPOTHEICAL PROTEIN.
SQ SEQUENCE 95 AA: 10485 MM: 5283348D CRC32:

Query Match 59.4%; Score 60; DB 14; Length 95;
Best Local Similarity 50.0%; Pred. No. 8,07e-01;
Matches 6; Conservative 3; Mismatches 3; Indels 0; Gaps 0;

Db 74 QICADPSKNVR 85
:|:|:|:|:
QY 1 EICLDPKQKQWQ 12

RESULT 20
ID 067634; PRELIMINARY; PRT: 203 AA.
AC 067634;
DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE ECO Q PROTEIN (FRAGMENT).
OS GALLID HERPESVIRUS TYPE 1.
OC VIRUSES; DSDNA VIRUSES, NO RNA STAGE; HERPESVIRIDAE;
OC ALPHAHERPESVIRINAE; VARICELLOVIRUS.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-GA.
RX MEDLINE; 96074534.
RA PENG Q., ZENG M., BHUIYAN Z.A., UBUKATA E., TANAKA A., NONOYAMA M.,
RA SHIRAZI Y.;
RT "Isolation and characterization of Marek's disease virus (MDV) cDNAs
RT mapping to the BamHI-12, BamHI-Q2, and BamHI-L fragments of the MDV

```

RT genome from Lymphoblastoid cells transformed and persistently infected
with MDV";
RL VIROLOGY 213:590-599(1995).
DR EMBL; U34966; G1185444; -.
DR PFAM; PF00048; 118; 1.
FT NON_TER
SQ SEQUENCE 203 AA; 23132 MW; 887D04C3 CRC32;

Query Match 59.4%; Score 60; DB 14; Length 203;
Best Local Similarity 54.5%; Pred. No. 8.07e-01;
Matches 6; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

Db 145 VCDEPAPWQ 155
:|:|:|:|:|
QY 2 ICLEDPKOKWQ 12

RESULT 21 PRELIMINARY; PRT; 397 AA.
ID P78423
AC P78423; 000672;
DT 01-MAY-1997 (TREMBLREL. 03, CREATED)
DT 01-MAY-1997 (TREMBLREL. 03, LAST SEQUENCE UPDATE)
DE CX3C CHEMOKINE PRECURSOR.
GN A-152E5.2.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE; 9717711.
RA BATAN J.F., BACON K.B., HARDMAN G., WANG W., SOO K., ROSSI D.,
GRAVES D.R., ZLOTNIK A., SCHALL T.J.;
RT "A new class of membrane-bound chemokine with a CX3C motif";
RL NATURE 385:640-644(1997).
RN [2]
RP SEQUENCE FROM N.A.
RA ADAMS M.D., LOFTUS B.J., ZHOU L., CROSBY M., FUHRMANN J., MASON T.M.,
BRANDON R., KIM U.J., KERLAVAGE A.R., VENTER J.C.;
RT "Homo sapiens chromosome 16 BAC clone C1987SK-A-152E5";
RL SUBMITTED (JUN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; U91835; G1899259; -.
DR EMBL; U84487; G1888523; -.
DR EMBL; AC004382; G3252821; -.
DR PFAM; PF00048; 118; 1.
KW SIGNAL.
FT CHAIN
SQ SEQUENCE 397 AA; 42202 MW; C8093D7D CRC32;

Query Match 59.4%; Score 60; DB 4; Length 397;
Best Local Similarity 60.0%; Pred. No. 8.07e-01;
Matches 6; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 73 FCADPRQWV 82
:|:|:|:|:|
QY 2 ICLEDPKOKWV 11

RESULT 22 PRELIMINARY; PRT; 93 AA.
ID 000626
AC 000626;
DT 01-JUL-1997 (TREMBLREL. 04, CREATED)
DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
DE MACROPHAGE-DERIVED CHEMOKINE PRECURSOR.
GN MDC OR A-152E5.1.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RA GODISKA R., CHANTRY D., RAPORT C.J., SOZZANI S., ALLAVENA P.,

RA MANTOVANI A., GRAY P.W.;
RL J. EXP. MED. 185:0-0(0).
RN [2]
RP SEQUENCE FROM N.A.
RA CHANG M.S., MCNICH J., ELIAS III C., MANTHEY C.L., GROSSHANS D.,
MENG T., BOONE T., ANDREW D.P.;
RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [3]
RP SEQUENCE FROM N.A.
RA ADAMS M.D., LOFTUS B.J., ZHOU L., CROSBY M., FUHRMANN J., MASON T.M.,
BRANDON R., KIM U.J., KERLAVAGE A.R., VENTER J.C.;
RT "Homo sapiens chromosome 16 BAC clone C1987SK-A-152E5";
RL SUBMITTED (JUN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; U83171; G1931581; -.
DR EMBL; U83239; G2062425; -.
DR EMBL; AC004382; G3252820; -.
DR PFAM; PF00048; 118; 1.
KW SIGNAL.
FT CHAIN
SQ SEQUENCE 93 AA; 10580 MW; 65EA63D2 CRC32;

Query Match 58.4%; Score 59; DB 4; Length 93;
Best Local Similarity 63.6%; Pred. No. 1.28e+00;
Matches 7; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

Db 74 EICADPRWVW 84
|||:|:|:|
QY 1 EICLDPKOKWV 11

RESULT 23 PRELIMINARY; PRT; 133 AA.
ID 009006
AC 009006;
DT 01-JUL-1997 (TREMBLREL. 04, CREATED)
DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
DE 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE BETA CHEMOKINE EXODUS-2.
GN SCYA21.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCUROGNATHI; MURIDAE; MURINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-TOTAL FETUS;
RX MEDLINE; 97444139.
RA HROMAS R., KIM C.H., KLEMSZ M., KRATHWOHL M., FIFE K., COOPER S.,
SCHNITZLEIN-BICK C., BROXMEYER H.E.;
RT "Isolation and characterization of Exodus-2, a novel C-C chemokine
with a unique 37-amino acid carboxyl-terminal extension";
RL J. IMMUNOL. 159:2554-2558(1997).
RN [2]
RP SEQUENCE FROM N.A.
RC TISSUE-TOTAL FETUS;
RA HROMAS R.A.;
RL SUBMITTED (JUN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; U88322; G3169697; -.
DR MGD; MGI:1097677; SCYA21.
DR PFAM; PF00048; 118; 1.
SQ SEQUENCE 133 AA; 14600 MW; B34A5E22 CRC32;

Query Match 58.4%; Score 59; DB 11; Length 133;
Best Local Similarity 50.0%; Pred. No. 1.28e+00;
Matches 6; Conservative 3; Mismatches 3; Indels 0; Gaps 0;

Db 73 EICADPRWVW 84
||:|:|:|:|:|
QY 1 EICLDPKOKWV 12

RESULT 24 PRELIMINARY; PRT; 133 AA.
ID 009002
AC 009002;

DT 01-JUL-1997 (TREMREL. 04, CREATED)
 DT 01-JUL-1997 (TREMREL. 04, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMREL. 08, LAST SEQUENCE UPDATE)
 DE SMALL INDUCIBLE CYTOKINE A21 (TCA4).
 GN SCY21.
 OS MUS MUSCULUS (MOUSE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
 OC SCIUROGNATHI; MORIDAE; MURINAE; MUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-THYMUS;
 RA TANABE S., LU Z., LUO Y., QUACKENBUSH E.J., BERMAN M.A.,
 RA COLLINS-RACIE L.A., MI S., REILLY C., LO D., JACOBS K.A., DORF M.E.;
 RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 97400322.
 RA HEDRICK J.A., ZLOTNIK A.;
 RT "Identification and characterization of a novel beta chemokine
 containing six conserved cysteines.";
 RT J. IMMUNOL. 159:1589-1593(1997).
 RL [3]
 RN [3]
 RP SEQUENCE FROM N.A.
 RA HEDRICK J.A., ZLOTNIK A.;
 RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 RX EMBL; AF006637; G2209189; -;
 DR EMBL; AF001980; G2624927; -;
 DR MGD; MGI:1097677; SCY21.
 DR PFAM; PF00048; 118; 1.
 SO SEQUENCE 133 AA; 14558 MW; C0532523 CRC32;
 Query Match 58.4%; Score 59; DB 11; Length 133;
 Best Local Similarity 50.0%; Pred. No. 1.28e+00;
 Matches 6; Conservative 3; Mismatches 3; Indels 0; Gaps 0;
 Db 73 ELCANPEGWVQ 84
 QY 1 EICLDPKQKWQ 12
 RESULT 25
 ID 002426 PRELIMINARY; PRT; 584 AA.
 AC 002426;
 DT 01-JUL-1997 (TREMREL. 04, CREATED)
 DT 01-JUL-1997 (TREMREL. 04, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMREL. 08, LAST SEQUENCE UPDATE)
 DE SNAIL HOMOLOG.
 GN CI-SNAIL.
 OS CLONIA INTESTINALIS.
 OC EUKARYOTA; METAZOA; CHORDATA; UROCHORDATA; ASCIDIACEA; PHLEBOBRANCHIA;
 OC CLONIDAE; CLONIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA CORBO J.C., ERIVES A., DI GREGORIO A., CHANG A., LEVINE M.;
 RL DEVELOPMENT 0:0-0(0).
 DR EMBL; AF002987; G2196753; -;
 DR PROSITE; PS00028; ZINC_FINGER_C2H2; 4.
 DR PFAM; PF00096; ZF-C2H2; 5.
 DR ZINC-FINGER; METAL-BINDING; DNA-BINDING.
 KW ZINC-FINGER; METAL-BINDING; DNA-BINDING.
 SO SEQUENCE 584 AA; 64756 MW; BIDE5647 CRC32;
 Query Match 58.4%; Score 59; DB 5; Length 584;
 Best Local Similarity 54.5%; Pred. No. 1.28e+00;
 Matches 6; Conservative 2; Mismatches 3; Indels 0; Gaps 0;
 Db 397 VCLDSKTTWRQ 407
 QY 2 ICLDPKQKWQ 12
 RESULT 26
 ID 082387 PRELIMINARY; PRT; 535 AA.
 AC 082387;

DT 01-NOV-1998 (TREMREL. 08, CREATED)
 DT 01-NOV-1998 (TREMREL. 08, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMREL. 08, LAST SEQUENCE UPDATE)
 DE PUTATIVE CELL DIVISION PROTEIN.
 GN T27A16.22.
 OS ARABIDOPSIS THALIANA (MOUSE-EAR CRESS).
 OC EUKARYOTA; VIRIDIPHYTES; CHAROPHYTA/EMBRYOPHYTA GROUP; EMBRYOPHYTA;
 OC TRACHEOPHYTES; EUPHYLOPHYTES; SPERMATOPHYTES; MAGNOLIOPHYTA;
 OC EUDICOTYLEDONS; ROSIDAE; CAPPARIDAE; BRASSICACEAE; ARABIDOPSIS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-CV. COLUMBIA;
 RA ROUNSELEY S.D., LIN X., KAUL S., SHEA T.P., FUJII C.Y., MASON T.M.,
 RA SHEN M., RÖNNING C.M., FRASER C.M., SOMERVILLE C.R., VENTER J.C.;
 RT "Arabidopsis thaliana chromosome II BAC T27A16 genomic sequence.";
 RL SUBMITTED (SEP-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL; AC005496; G3582344; -;
 KW CELL DIVISION.
 SO SEQUENCE 535 AA; 59484 MW; 8AF744C7 CRC32;
 Query Match 57.4%; Score 58; DB 10; Length 535;
 Best Local Similarity 55.6%; Pred. No. 2.02e+00;
 Matches 5; Conservative 2; Mismatches 2; Indels 0; Gaps 0;
 Db 97 VCLEVSKW 105
 QY 2 ICLDPKQKWQ 10
 RESULT 27
 ID P70357 PRELIMINARY; PRT; 201 AA.
 AC P70357;
 DT 01-FEB-1997 (TREMREL. 02, CREATED)
 DT 01-FEB-1997 (TREMREL. 02, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMREL. 08, LAST SEQUENCE UPDATE)
 DE PLASMA RETINOL-BINDING PROTEIN PRECURSOR (RBP) (RBP).
 GN RBP.
 OS MUS MUSCULUS (MOUSE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
 OC SCIUROGNATHI; MORIDAE; MURINAE; MUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-B6/CBAF1;
 RA JESSEN K.A., SAIRE M.A.;
 RL SUBMITTED (JUL-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
 CC -1- FUNCTION: RBP DELIVERS RETINOL FROM THE LIVER STORES TO THE
 PERIPHERAL TISSUES. IN PLASMA, THE RBP-RETINOL COMPLEX INTERACTS
 WITH TRANSTHYRETIN. THIS PREVENTS ITS LOSS BY FILTRATION THROUGH
 THE KIDNEY GLOMERULI.
 CC THE KIDNEY GLOMERULI.
 CC -1- SIMILARITY: BELONGS TO THE LIPOCALIN FAMILY.
 DR EMBL; U63146; G1515450; -;
 DR PROSITE; PS00213; LIPOCALIN; 1.
 DR PFAM; PF00061; Lipocalin; 1.
 KW PLASMA; VITAMIN A; RETINOL-BINDING; TRANSPORT; LIVER; SIGNAL;
 KW LIPOCALIN.
 FT SIGNAL 1 18 BY SIMILARITY.
 FT CHAIN 19 201 PLASMA RETINOL-BINDING PROTEIN.
 FT DISULFID 22 178 BY SIMILARITY.
 FT DISULFID 138 147 BY SIMILARITY.
 SO SEQUENCE 201 AA; 23206 MW; AA915F05 CRC32;
 Query Match 56.4%; Score 57; DB 11; Length 201;
 Best Local Similarity 33.3%; Pred. No. 3.17e+00;
 Matches 4; Conservative 5; Mismatches 3; Indels 0; Gaps 0;
 Db 176 ELCLERQYRWE 187
 QY 1 EICLDPKQKWQ 12
 RESULT 28
 ID 017348 PRELIMINARY; PRT; 331 AA.
 AC 017348;

DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
 DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE H42K12.2 PROTEIN.
 GN H42K12.2.
 GN CAENORHABDITIS ELEGANS.
 OC EUKARYOTA; METAZOA; NEMATODA; SECERNENTEA; RHABDITIA; RHABDITIDA;
 OC RHABDITINA; RHABDITOIDEA; RHABDITIDAE; PELODERINAE; CAENORHABDITIS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-BRISTOL N2;
 RX MEDLINE: 94150718.
 RA WILSON R., AINSCOUGH R., ANDERSON K., BAYNES C., BEERS M., BOWFIELD J.,
 RA BURTON J., CONNELL M., COPSEY T., COOPER J., COULSON A., CRAWTON M.,
 RA DEAR S., DU Z., DUBREIN R., FAVELLO A., FULTON L., GARDNER A., GREEN P.,
 RA HAWKINS T., HILLIER L., JIER M., JOHNSTON L., JONES M., KERSHAW J.,
 RA KIRSTEN J., LAISTER N., LATREILLE P., LIGHTNING J., LLOYD C.,
 RA KUMURAY A., MORTIMORE B., O'CALLAGHAN M., PARSONS J., PERCY C.,
 RA RIEKEN L., ROOPRA A., SAUNDERS D., SHOWNKEEN R., SMALDON N., SMITH A.,
 RA SONNHAMMER E., STADEN R., SUISTON J., THIERRE-MIEG J., THOMAS K.,
 RA VAUDIN M., VAUGHAN K., WATERSTON R., WATSON A., WEINSTOCK L.,
 RA WILKINSON-SPROUT J., WOHLDMAN P.;
 RT "2.2 Mb of contiguous nucleotide sequence from chromosome III of C.
 RT elegans.";
 RL NATURE 368:32-38(1994).
 RN [2]
 RP SEQUENCE FROM N.A.
 RC STRAIN-BRISTOL N2;
 RA MAGGI L., HARPER M.;
 RL SUBMITTED (OCT-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [3]
 RP SEQUENCE FROM N.A.
 RC STRAIN-BRISTOL N2;
 RA WATERSTON R.;
 RL SUBMITTED (SEP-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: AF026207; G2435555; -;
 SQ SEQUENCE 331 AA; 36627 MW; EA085EB CRC32;

Query Match
 Best Local Similarity 40.0%; Pred. No. 3.17e+00;
 Matches 4; Conservative 4; Mismatches 2; Indels 0; Gaps 0;

Db 126 NCCLSPERRW 135
 QY 1 EICLDPKQKW 10

RESULT 29
 ID 099126 PRELIMINARY; PRT; 760 AA.
 AC 099126;
 DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
 DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
 DT 01-MAY-1997 (TREMBLREL. 03, LAST ANNOTATION UPDATE)
 DE CHITIN SYNTHETASE I.
 GN CHS1
 GN USHLAGO MAYDIS (SMUT FUNGUS).
 OC EUKARYOTA; FUNGI; BASIDIOMYCOTA; USTILAGINOMYCETES;
 OC USTILAGINOMYCETIDAE; USTILAGINALES; USTILAGINACEAE; USTILAGO.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-RK32 (A2B3);
 RA XOCOONOSTLE-CAZARES B., LEON-RAMIREZ C., RUIZ-HERRERA J.;
 RA MICROBIOLOG 142:377-387(1996).
 DR EMBL: X87748; G861151; -;
 SQ SEQUENCE 760 AA; 85181 MW; 2F2AC4C9 CRC32;

Query Match
 Best Local Similarity 56.4%; Score 57; DB 3; Length 760;
 Matches 6; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

Db 483 EICATETGKW 492
 QY 1 EICLDPKQKW 10

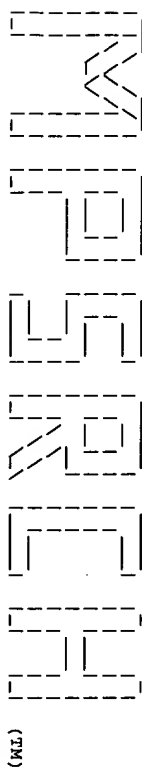
RESULT 30
 ID 064975 PRELIMINARY; PRT; 158 AA.
 AC 064975;
 DT 01-AUG-1998 (TREMBLREL. 07, CREATED)
 DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE PUTATIVE DISEASE RESISTANCE PROTEIN (FRAGMENT).
 GN ARABIDOPSIS THALIANA (MOUSE-EAR CRESS).
 OC EUKARYOTA; VIRIDIPHYTES; CHAROPHYTA/EMBRYOPHYTA GROUP; EMBRYOPHYTA;
 OC TRACHEOPHYTA; EUPHYLOPHYTES; SPERMATOPHYTA; MAGNOLIOPHYTA;
 OC EUDICOTYLEDONS; ROSIDAE; CAPPARALES; BRASSICACEAE; ARABIDOPSIS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-CV, LANDSBERG ERECTA;
 RX MEDLINE: 98191999.
 RA AARTS M.G., TE LINTPEL HEKKERT B., HOLLUB E.B., BEYNON J.L.,
 RA STIEREMA W.J., PEREIRA A.;
 RT "Identification of R-gene homologous DNA fragments genetically linked
 RT to disease resistance loci in Arabidopsis thaliana.";
 RL MOL. PLANT MICROBE INTERACT. 11:251-258(1998).
 DR EMBL: AF039381; G3075472; -;
 FT NON_TER 1 1
 FT NON_TER 158 158
 SQ SEQUENCE 158 AA; 18235 MW; 12D846C9 CRC32;

Query Match
 Best Local Similarity 55.4%; Score 56; DB 10; Length 158;
 Matches 4; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 121 CLDPERRW 128
 QY 3 CLDPKQKW 10

Search completed: Thu Apr 1 07:34:46 1999
 Job time : 31 secs.

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Msrch_pp protein - protein database search, using Smith-Waterman algorithm
Run on: Thu Apr 1 07:38:21 1999; Msrch time 2.83 Seconds
Tabular output not generated. 68.511 Million cell updates/sec

Title: >US-08-927-939-11
Description: (1-12) from US08927939.pep
Perfect Score: 94
Sequence: 1 EICADPSQKWQ 12

Scoring table:
PAM 150
Gap 15

Searched: 131922 seqs, 16180660 residues

Post-processing: Minimum Match 0%
Listing first 100 summaries

Database: a-geneseq32
1:part1 2:part2 3:part3 4:part4 5:part5 6:part6 7:part7
8:part8 9:part9 10:part10 11:part11 12:part12 13:part13
14:part14 15:part15 16:part16 17:part17 18:part18
19:part19 20:part20 21:part21 22:part22 23:part23
24:part24 25:part25 26:part26 27:part27 28:part28
29:part29

Statistics: Mean 18.171; Variance 62.168; scale 0.292

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description	Pred. No.
1	92	97.9	67 14	R73915	Human monocyte chemo	1.23e-02
2	92	97.9	99 13	R70801	Chemottractant prote	1.23e-02
3	92	97.9	109 2	R24353	Cytokine encoded by c	1.23e-02
4	89	94.7	66 24	W13598	Monocyte chemottract	2.57e-02
5	89	94.7	67 24	W13597	Monocyte chemottract	2.57e-02
6	89	94.7	68 24	W13597	Monocyte chemottract	2.57e-02
7	89	94.7	69 24	W13596	Monocyte chemottract	2.57e-02
8	89	94.7	69 14	R87676	des(2-8) MCP-1.	2.57e-02
9	89	94.7	76 14	R87676	(24-Arg) MCP-1.	2.57e-02
10	89	94.7	76 20	W09374	Monocyte chemotacti	2.57e-02
11	89	94.7	76 10	R53398	Sense MCP-1.	2.57e-02
12	89	94.7	76 14	R87675	(28-asp) MCP-1.	2.57e-02
13	89	94.7	76 21	W11131	Mature human monocyte	2.57e-02
14	89	94.7	76 14	R87677	(3-Ala) MCP-1.	2.57e-02
15	89	94.7	76 1	P90292	Peptide from human g1	2.57e-02
16	89	94.7	76 15	R87680	Monocyte chemotacti	2.57e-02
17	89	94.7	76 5	R28650	MCP.	2.57e-02
18	89	94.7	77 15	R86859	Mature MCP-1.	2.57e-02

19	89	94.7	99 14	R73914	Human monocyte chemo	2.57e-02
20	89	94.7	99 5	R28663	MCF.	2.57e-02
21	89	94.7	99 13	R70800	Chemottractant prote	2.57e-02
22	89	94.7	99 2	P95387	Human monocyte chemo	2.57e-02
23	85	90.4	71 27	W22675	Dro3+ chemokine beta	6.85e-02
24	85	90.4	75 27	W22673	Bac 3 chemokine beta	6.85e-02
25	85	90.4	77 27	W22672	Bac 2 chemokine beta	6.85e-02
26	85	90.4	79 27	W22674	Dro11/2 chemokine bet	6.85e-02
27	85	90.4	82 27	W22671	Bac 1 chemokine beta	6.85e-02
28	85	90.4	82 24	W17665	Stem cell mobilizing	6.85e-02
29	85	90.4	98 17	R93087	Human chemokine beta	6.85e-02
30	85	90.4	98 28	W30191	Monocyte chemotacti	6.85e-02
31	85	90.4	98 27	W22670	Human chemokine beta	6.85e-02
32	85	90.4	99 2	R06398	Human MCF precursor.	6.85e-02
33	84	89.4	76 5	R26580	Sequence of bovine p6	8.74e-02
34	84	89.4	99 5	R26581	Sequence of p6 precu	8.74e-02
35	82	87.2	69 7	R39137	LD78 GLU55>Glu, Glu56	1.42e-01
36	81	86.2	60 24	W17662	Stem cell mobilizing	1.81e-01
37	81	86.2	82 29	W44721	Antio acid sequence o	1.81e-01
38	81	86.2	89 14	R76127	Macrophage inflamat	1.81e-01
39	81	86.2	89 21	W07204	Human cytokine beta-1	1.81e-01
40	81	86.2	89 25	W23643	Human dendritic cell	1.81e-01
41	81	86.2	97 21	W00667	Pancreas expressed ch	1.81e-01
42	81	86.2	97 23	W10099	Human ectoxin	1.81e-01
43	81	86.2	97 24	W14990	Human eosinocyte CC t	1.81e-01
44	80	85.1	69 7	R38926	LD78 GLU48>Glu, Glu49	2.30e-01
45	80	85.1	69 7	R38940	LD78 Phe28>Glu, Glu48	2.30e-01
46	80	85.1	69 7	R38942	LD78 GLU56>Arg, Glu56	2.30e-01
47	81	81.9	64 7	R39081	LD78 C65-69.	4.73e-01
48	77	81.9	66 7	R38951	ML-3 LD78 Thr15>Phe.	4.73e-01
49	77	81.9	69 7	R39114	LD78 Ser63>Ala.	4.73e-01
50	77	81.9	69 7	R38934	LD78 Ile24>Thr.	4.73e-01
51	77	81.9	69 7	R38979	LD78 Arg45>Ser.	4.73e-01
52	77	81.9	69 7	R39086	LD78 GLU66>Ser.	4.73e-01
53	77	81.9	69 7	R38944	LD78 GLU18>Glu.	4.73e-01
54	77	81.9	69 7	R39107	LD78 Thr67>Asp.	4.73e-01
55	77	81.9	69 7	R38931	LD78 Leu67>Asp.	4.73e-01
56	77	81.9	69 7	R38931	LD78 Phe23>Asn, Ile24	4.73e-01
57	77	81.9	69 7	R39084	LD78 Lys36>Ser.	4.73e-01
58	77	81.9	69 7	R39085	LD78 Leu65>Ala.	4.73e-01
59	77	81.9	69 7	R38981	LD78 GLU56>Ser.	4.73e-01
60	77	81.9	69 7	R38932	LD78 Asp26>Ala.	4.73e-01
61	77	81.9	69 7	R38930	LD78 Arg17>Ser.	4.73e-01
62	77	81.9	69 7	R39112	LD78 Tyr27>Ala.	4.73e-01
63	77	81.9	69 7	R38960	LD78 Ser13>Ala.	4.73e-01
64	77	81.9	69 7	R38976	LD78 Asp5>Ser.	4.73e-01
65	77	81.9	69 7	R39088	LD78 Ser1>Ala.	4.73e-01
66	77	81.9	69 7	R38954	LD78 Phe12>Ala.	4.73e-01
67	77	81.9	69 7	R39091	LD78 Ser31>Ala.	4.73e-01
68	77	81.9	69 7	R39096	LD78 Ser13>Ala.	4.73e-01
69	77	81.9	69 7	R38969	LD78 Ser46>Ala.	4.73e-01
70	77	81.9	69 7	R39104	LD78 Pro37>Ala.	4.73e-01
71	77	81.9	69 7	R39101	LD78 Ser68>Ala.	4.73e-01
72	77	81.9	69 7	R39102	LD78 Tyr14>Ala.	4.73e-01
73	77	81.9	69 7	R39132	LD78 Asp64>Arg.	4.73e-01
74	77	81.9	69 7	R39117	LD78 Ala24>Ser.	4.73e-01
75	77	81.9	69 7	R38972	LD78 Ala4>Ser.	4.73e-01
76	77	81.9	69 7	R38938	LD78 Phe28>Glu.	4.73e-01
77	77	81.9	69 7	R38941	LD78 Phe28>Glu.	4.73e-01
78	77	81.9	69 7	R38977	LD78 Phe23>Ala.	4.73e-01
79	77	81.9	69 7	R39115	LD78 Thr15>Ala.	4.73e-01
80	77	81.9	69 7	R38961	LD78 Asp5>Arg.	4.73e-01
81	77	81.9	69 7	R38936	LD78 Arg47>Glu.	4.73e-01
82	77	81.9	69 7	R38935	LD78 Ile40>Arg.	4.73e-01
83	77	81.9	69 7	R39127	LD78 Thr30>Asp.	4.73e-01
84	77	81.9	69 7	R39118	LD78 Thr30>Ala.	4.73e-01
85	77	81.9	69 7	R38983	LD78 Asp64>Ser.	4.73e-01
86	77	81.9	69 7	R39145	LD78 Ile24>Val.	4.73e-01
87	77	81.9	69 7	R39110	LD78 Pro7>Ala.	4.73e-01
88	77	81.9	69 7	R38965	LD78 Ala3>Glu.	4.73e-01
89	77	81.9	69 7	R39111	LD78 Thr8>Ala.	4.73e-01
90	77	81.9	69 7	R38970	LD78 Leu2>Ala.	4.73e-01
91	77	81.9	69 7	R38929	LD78 Phe28>Ser.	4.73e-01

92 77 81.9 70 7 R39136 LD78 Cys10, Cys11 > C 4.73e-01
 93 77 81.9 70 7 R38949 Ala-Ser1>Pro LD78 4.73e-01
 94 77 81.9 72 7 R38950 Leu-Ser-Ala-Ser1>Pro 4.73e-01
 95 77 81.9 74 7 R38925 Act-2 4.73e-01
 96 77 81.9 74 7 R38923 LD78 4.73e-01
 97 77 81.9 91 1 P91030 Human H400 polypeptid 4.73e-01
 98 77 81.9 92 1 R04221 Protein encoded by pA 4.73e-01
 99 77 81.9 92 7 R36769 MIP-1alpha 4.73e-01
 100 77 81.9 92 7 R36770 MIP-1beta 4.73e-01

ALIGNMENTS

RESULT 1
 ID R73915 standard; protein; 67 AA.

AC R73915; 05-DEC-1995 (first entry)
 DE Human monocytic chemoattractant factor hMCP-3.
 KW Human monocytic chemoattractant factor; hMCP-3; chemokine; vaccine;
 KW meningitis related homologous antigenic sequence; MRHAS; RV-1;
 KW immunoassay; diagnosis; treatment; prophylactic; bacterial;
 KW viral.
 OS Homo sapiens.
 PN W09509232-A.
 PD 06-APR-1995.
 PE 28-SEP-1994; CA0516.
 PR 28-SEP-1993; US-127499.
 RA (SHAR) SHARMA L R.
 PA (VALS/) VAN ALSTYNE D.
 PI Sharma LR, Van Alstyne D;
 DR WPI: 95-147431/19.
 PT New peptide(s) and corresp. antibodies for the treatment of
 PT meningitis - the peptide(s) corresp. to homologous antigenic
 PT sites on bacterial and viral agents and on chemokine(s), used for
 PT detecting and preventing meningitis
 PS Claim 47; Fig 8/10; 98PP; English.
 CC R73915 is the chemokine Human monocytic chemoattractant factor hMCP-3.
 CC It contains the meningitis related antigenic sequences (MRHAS) claimed
 CC in R73896 and R73908, which are recognised by a monoclonal antibody
 CC from the hybridoma Rubella virus (RV)-1. The claimed MRHAS peptides
 CC may be used in immunoassays to diagnose the presence of bacterial
 CC and/or viral meningitis agents in a sample, or in prophylactic and
 CC therapeutic meningitis treatments. The peptides may also be used as
 CC vaccines against meningitis.
 CC NB: Identified by matching corresponding MRHAS peptides.
 SQ Sequence 67 AA.

Query Match 97.9%; Score 92; DB 14; Length 67;
 Best Local Similarity 91.7%; Pred. No. 1.23e-02;
 Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 41 eicadptqkvwq 52
 |||||:|||||
 QY 1 EICADPSQKRWQ 12

RESULT 2
 ID R70801 standard; protein; 99 AA.

AC R70801; 29-AUG-1995 (first entry)
 DE Chemoattractant protein MCP-3.
 KW MCP-3; chemoattractant; heparanase; heparin; heparan sulfate;
 KW arthritis; restenosis; cancer; wound healing.
 OS Homo sapiens.
 PN W09504158-A.
 PD 09-FEB-1995.
 PE 26-JUL-1994; U08207.
 PR 29-JUL-1993; US-099866.
 PR 13-OCT-1993; US-136117.
 PA (UPJO) UPJOHN CO.
 PI Hoogwerf AJ, Ledbetter SR.
 DR WPI: 95-082339/11.
 DR N-PSDB; 085371.

PT Screening for cpds. with anti-heparanase activity - by detecting
 PT inhibition of heparin or heparan sulphate degradation,
 PT potentially useful for treating arthritis, restenosis, cancer.
 PS Claim 13; Page 50; 60PP; English.
 CC Purified heparanases, prepared under reducing conditions and
 CC activated with transglutaminase, are given in R70786-801. Most
 CC are prepared by reverse transcription of mRNA from activated human
 CC leukocytes, then cloning of the cDNA into pVL1392 baculovirus
 CC vector, and expression in Sf9 cells in the presence of reduced
 CC glutathione and dithiothreitol.
 SQ Sequence 99 AA;

Query Match 97.9%; Score 92; DB 13; Length 99;
 Best Local Similarity 91.7%; Pred. No. 1.23e-02;
 Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 73 eicadptqkvwq 84
 |||||:|||||
 QY 1 EICADPSQKRWQ 12

RESULT 3
 ID R24353 standard; Protein; 109 AA.
 AC R24353;
 DT 26-NOV-1992 (first entry)
 DE Cytokine encoded by clone NC28.
 KW Cytokine; plasmid pSEL; HTLV-1; human T-lymphocyte virus;
 KW mouse; alpha-globin; E.coli cloning vector; ss.
 OS Synthetic.
 FH Key location/Qualifiers
 FT peptide 1..33
 FT /label= signal
 FT /note= "includes 3 potential initiation sites"
 FT protein 34..109
 FT /label= cytokine
 FT modified_site 39..41
 FT /label= N-glycosylation
 FT /note= "putative"

EP-488900-A.
 PN 03-JUN-1992.
 PD 29-NOV-1991; 403243.
 PR 29-NOV-1990; FR-014961.
 PA (ERAP) ELF SANOFI.
 PA (SNFI) SANOFI SA.
 PI Caput D, Ferrara P, Miloux B, Minty A, Vita N;
 DR WPI: 92-185765/23.
 DR N-PSDB; Q25259.

PT New monocytic chemoattractant cytokine - for treatment of cancer
 PT and parasitic infections, e.g. leishmaniasis, leprosy or Chagas
 PT disease
 PS Claim 1; Fig 2; 45PP; French.
 CC This protein is encoded by the NC28 clone isolated from
 CC peripheral blood mononuclear cells stimulated with phorbol
 CC 2-myristate-3-acetate (see Q25259). The mature protein is claimed.
 CC It can be N-terminally deleted such that the mature protein starts
 CC at Val 3 or at Lys 19. The leader sequence is active in animal
 CC cells. See Q25258-Q25262.
 SQ Sequence 109 AA;

Query Match 97.9%; Score 92; DB 2; Length 109;
 Best Local Similarity 91.7%; Pred. No. 1.23e-02;
 Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 83 eicadptqkvwq 94
 |||||:|||||
 QY 1 EICADPSQKRWQ 12

RESULT 4
 ID W13598 standard; peptide; 66 AA.
 AC W13598;
 DT 07-NOV-1997 (first entry)
 DE Monocyte chemoattractant protein analogue MCP-1 (10-76).

KW Truncated monocyte chemoattractant protein-1; inhibitor;
KW receptor binding; anti inflammatory; basophil; lymphocyte; allergy;
KW chronic inflammatory disease; arthritis; arteriosclerosis;
OS Homo sapiens.
PN CA2152141-A.
PD 20-DEC-1996.
PF 19-JUN-1995; 152141.
PR 19-JUN-1995; CA-152141.
PA (LEWIS I).
PI Gong J, Lewis I;
DR WPI: 97-165844/16.
PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
PT lacks MCP-1 activity and inhibits receptor binding, useful as
PT anti-inflammatory agent
PS Disclosure: Page 5; 27pp; English.
CC The present sequence represents an analogue, MCP-1 (10-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-9 of MCP-1, acts as an antagonist of MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammatory sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC providing 50% inhibition of binding at a 25:1 ratio or less, compared
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 66 AA;

Query Match 94.7%; Score 89; DB 24; Length 66;
Best Local Similarity 91.7%; Pred. No. 2.57e-02;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 40 eicadpkxkwg 51
| | | | | | | | | |
Qy 1 EICADPSQKRWQ 12

RESULT 5
ID W13599 standard; peptide; 67 AA.
AC W13599;
DT 07-NOV-1997 (first entry)
DE Monocyte chemoattractant protein analogue MCP-1 (11-76).
KW Truncated monocyte chemoattractant protein-1; inhibitor;
KW receptor binding; anti inflammatory; basophil; lymphocyte; allergy;
KW chronic inflammatory disease; arthritis; arteriosclerosis;
KW lung disease.
OS Homo sapiens.
PN CA2152141-A.
PD 20-DEC-1996.
PF 19-JUN-1995; 152141.
PR 19-JUN-1995; CA-152141.
PA (LEWIS I).
PI Gong J, Lewis I;
DR WPI: 97-165844/16.
PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
PT lacks MCP-1 activity and inhibits receptor binding, useful as
PT anti-inflammatory agent
PS Disclosure: Page 5; 27pp; English.
CC The present sequence represents an analogue, MCP-1 (11-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-10 of MCP-1, acts as an antagonist of MCP-1
CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammatory sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC providing 50% inhibition of binding at a 25:1 ratio or less, compared

CC with 75:1 for prior art mutant 7ND.
SQ Sequence 67 AA;

Query Match 94.7%; Score 89; DB 24; Length 67;
Best Local Similarity 91.7%; Pred. No. 2.57e-02;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 41 eicadpkxkwg 52
| | | | | | | | | |
Qy 1 EICADPSQKRWQ 12

RESULT 6
ID W13597 standard; peptide; 68 AA.
AC W13597;
DT 07-NOV-1997 (first entry)
DE Monocyte chemoattractant protein analogue MCP-1 (9-76).
KW Truncated monocyte chemoattractant protein-1; inhibitor;
KW receptor binding; anti inflammatory; basophil; lymphocyte; allergy;
KW chronic inflammatory disease; arthritis; arteriosclerosis;
KW lung disease.
OS Homo sapiens.
PN CA2152141-A.
PD 20-DEC-1996.
PF 19-JUN-1995; 152141.
PR 19-JUN-1995; CA-152141.
PA (LEWIS I).
PI Gong J, Lewis I;
DR WPI: 97-165844/16.
PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
PT lacks MCP-1 activity and inhibits receptor binding, useful as
PT anti-inflammatory agent
PS Claim 7; Page 5; 27pp; English.
CC The present sequence represents an analogue, MCP-1 (9-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-8 of MCP-1, acts as an antagonist of MCP-1
CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammatory sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC providing 50% inhibition of binding at a 25:1 ratio or less, compared
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 68 AA;

Query Match 94.7%; Score 89; DB 24; Length 68;
Best Local Similarity 91.7%; Pred. No. 2.57e-02;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 42 eicadpkxkwg 53
| | | | | | | | | |
Qy 1 EICADPSQKRWQ 12

RESULT 7
ID W13596 standard; peptide; 69 AA.
AC W13596;
DT 07-NOV-1997 (first entry)
DE Monocyte chemoattractant protein analogue MCP-1 (8-76).
KW Truncated monocyte chemoattractant protein-1; inhibitor;
KW receptor binding; anti inflammatory; basophil; lymphocyte; allergy;
KW chronic inflammatory disease; arthritis; arteriosclerosis;
KW lung disease.
OS Homo sapiens.
PN CA2152141-A.
PD 20-DEC-1996.
PF 19-JUN-1995; 152141.
PR 19-JUN-1995; CA-152141.
PA (LEWIS I).
PI Gong J, Lewis I;

DR WPI: 97-165844/16.
 PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
 PT lacks MCP-1 activity and inhibits receptor binding, useful as
 PT anti-inflammatory agent
 PS Claim 5; Page 5; 27pp; English.
 CC The present sequence represents an analogue, MCP-1 (8-76), of monocyte
 CC chemottractant protein-1 (MCP-1). The analogue, which lacks the
 CC N-terminal amino acids 1-7 of MCP-1, acts as an antagonist of MCP-1
 CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
 CC receptor. The analogue is useful as an anti-inflammatory agent to block
 CC the effects of MCP-1 which is an inflammatory mediator causing migration
 CC of monocytes and other cells e.g. basophils and lymphocytes into
 CC inflammation sites. MCP-1 has been implicated in allergic and chronic
 CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
 CC diseases. The analogue competes more effectively with MCP-1 for binding
 CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
 CC providing 50% inhibition of binding at a 25:1 ratio or less, compared
 CC with 75:1 for prior art mutant 7ND.
 SQ Sequence 69 AA;

Query Match 94.7%; Score 89; DB 24; Length 69;
 Best Local Similarity 91.7%; Pred. No. 2.57e-02;
 Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 43 eicadpkqkwvq 54
 ||||| |||||
 QY 1 EICADPSQKWVQ 12

RESULT 8
 ID R87678 standard; protein; 69 AA.
 AC R87678;
 DT 21-FEB-1996 (first entry)
 DE des(2-8) MCP-1.
 KW monocyte chemoattractant protein; MCP-1; mutant; restenosis;
 KM angioplasty.
 OS Homo sapiens.
 FH Key Location/Qualifiers
 FT modified_site 2..3
 FT /note= "amino acids 2-8 of the native protein have
 FT been deleted between these residues"
 FT disulfide_bond 4..29
 FT disulfide_bond 5..45
 PN W09513295-A1.
 PD 18-MAY-1995.
 PF 07-NOV-1994; U12874.
 PR 12-NOV-1993; US-152301.
 PA (DAND) DANA FARBER CANCER INST INC.
 PI Rollins B, Zhang YJ;
 DR WPI: 95-215051/28.
 PT Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are
 PT capable of inhibiting the monocyte chemo-attractant activity of
 PT endogenous MCP-1 and can be used to treat restenosis
 PS Claim 4; Page 11; 22pp; English.
 CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
 CC that they inhibit the monocyte chemoattractant activity of endogenous
 CC MCP-1, provided that the derivative has not been modified by the
 CC substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
 CC are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg
 CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
 CC acids 2-8. The present sequence is a specifically claimed human MCP-1
 CC derivative based on the parent protein disclosed in Rollins, Molecular
 CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
 CC The peptides can be used to prevent restenosis, e.g. in patients
 CC undergoing coronary artery angioplasty.
 SQ Sequence 69 AA;

Query Match 94.7%; Score 89; DB 14; Length 69;
 Best Local Similarity 91.7%; Pred. No. 2.57e-02;
 Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
 Db 43 eicadpkqkwvq 54
 ||||| |||||

QY 1 EICADPSQKWVQ 12

RESULT 9
 ID R87676 standard; protein; 76 AA.
 AC R87676;
 DT 21-FEB-1996 (first entry)
 DE (24-Arg) MCP-1.
 KW monocyte chemoattractant protein; MCP-1; mutant; restenosis;
 KM angioplasty.
 OS Homo sapiens.
 FH Key Location/Qualifiers
 FT modified_site 24
 FT /note= "Arg in the native sequence is replaced by Phe"
 FT disulfide_bond 11..36
 FT disulfide_bond 12..52
 PN W09513295-A1.
 PD 18-MAY-1995.
 PF 07-NOV-1994; U12874.
 PR 12-NOV-1993; US-152301.
 PA (DAND) DANA FARBER CANCER INST INC.
 PI Rollins B, Zhang YJ;
 DR WPI: 95-215051/28.
 PT Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are
 PT capable of inhibiting the monocyte chemo-attractant activity of
 PT endogenous MCP-1 and can be used to treat restenosis
 PS Claim 5; Page 11; 22pp; English.
 CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
 CC that they inhibit the monocyte chemoattractant activity of endogenous
 CC MCP-1, provided that the derivative has not been modified by the
 CC substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
 CC are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg
 CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
 CC acids 2-8. The present sequence is a specifically claimed human MCP-1
 CC derivative based on the parent protein disclosed in Rollins, Molecular
 CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
 CC The peptides can be used to prevent restenosis, e.g. in patients
 CC undergoing coronary artery angioplasty.
 SQ Sequence 76 AA;

Query Match 94.7%; Score 89; DB 14; Length 76;
 Best Local Similarity 91.7%; Pred. No. 2.57e-02;
 Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 50 eicadpkqkwvq 61
 ||||| |||||
 QY 1 EICADPSQKWVQ 12

RESULT 10
 ID W09374 standard; protein; 76 AA.
 AC W09374;
 DT 21-MAR-1997 (first entry)
 DE Monocyte chemotactic protein 1.
 KW Human; monocyte chemoattractant protein; antisense; inhibition;
 KW mononuclear cell; lymphocyte; macrophage; smooth muscle cell;
 KW vascular restenosis.
 OS Homo sapiens.
 FH Key Location/Qualifiers
 FT misc_difference 1
 FT /note= "encoded by codon CAG"
 FT misc_difference 51
 FT /note= "encoded by codon AUG"
 FT misc_difference 65
 FT /note= "encoded by codon CAC"
 FT US5571713-A.
 PD 05-NOV-1996.
 PF 22-OCT-1992; 965678.
 PR 22-OCT-1992; US-965678.
 PR 27-MAY-1994; US-250958.
 PA (UNMI) UNIV MICHIGAN.
 PI Kunkel SL, Lytle LR, Strieter RM;
 DR WPI: 96-505405/50.

DR N-PSDB: T48092.
 PT Anti-sense Monocyte Chemotactic Protein-1 oligo:nucleotide(s) -
 PS Useful for therapy or diagnosis of restenosis, etc.
 CC Disclosure; Column 13-14; 16pp; English.
 CC This is the amino acid sequence of the human monocyte chemoattractant
 CC protein (MCP)-1, a member of the C-C chemokine family. MCP-1 is a potent
 CC stimulator of monocyte chemotaxis and is produced by injured vascular
 CC smooth cells thus attracting monocytes and macrophages which infiltrate
 CC the injured area and release growth factor. This causes proliferation of
 CC the vascular smooth cells resulting in restenosis. The gene sequence can
 CC be used to generate antisense sequences e.g. T48093-7, which can be used
 CC to inhibit in vitro MCP-1 prodn. by mononuclear cells e.g. lymphocytes or
 CC macrophages, or smooth muscle cells, esp. in order to prevent vascular
 CC restenosis.
 SQ Sequence 76 AA;

Query Match 94.7%; Score 89; DB 20; Length 76;
 Best Local Similarity 91.7%; Pred. No. 2.57e-02;
 Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 50 eicadpdkqkvwq 61
 ||||| |||||
 QY 1 EICADPSQKRWQ 12

RESULT 11
 ... R53398 standard; Protein; 76 AA.
 AC R53398;
 DT 15-DEC-1994 (first entry)
 DE Sense MCP-1.
 KW Antisense; RNA; DNA; monocyte chemotactic protein-1; MCP-1;
 KW radionucleide; vascular restenosis; alpha; beta; emitting isotope;
 OS Mammalian.
 FT Key Location/Qualifiers
 FT misc_difference 1 /note="Unspecified amino acid"
 PN WO9409128-A.
 PD 28-APR-1994.
 PF 20-OCT-1993; U10074.
 PR 22-OCT-1992; US-965678.
 PA (MLCW) MALLINKRODT MEDICAL INC.
 PI Lyle LR.
 DR WPI; 94-151314/18.
 PT Anti-sense monocyte chemotactic protein-1 oligo:nucleotide(s) and
 PT peptide(s) - is used for inhibiting, treating or imaging areas of
 PT vascular restenosis or potential restenosis
 PS Disclosure; Page 5; 42pp; English.
 CC The sequences given in R53398-99 represent sense and antisense
 CC monocyte chemotactic protein-1 (MCP-1) respectively. These
 CC oligonucleotides may be labelled with a radionucleide and use
 CC therapeutically for the treatment of vascular restenosis.
 CC Radiolabelled antisense MCP-1 compounds may be constructed using high
 CC energy alpha or beta emitting isotopes rather than the gamma
 CC emitters customarily used for diagnostic purposes. Antisense MCP-1
 CC compounds are not attracted to the area of production of MCP-1 so that
 CC monocytes are not attracted to the area of vascular injury and
 CC proliferation of vascular cells is inhibited.
 SQ Sequence 76 AA;

Query Match 94.7%; Score 89; DB 10; Length 76;
 Best Local Similarity 91.7%; Pred. No. 2.57e-02;
 Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 50 eicadpdkqkvwq 61
 ||||| |||||
 QY 1 EICADPSQKRWQ 12

RESULT 12
 ID R87675 standard; protein; 76 AA.
 AC R87675;
 DT 21-FEB-1996 (first entry)

DE (28-Asp) MCP-1.
 KW monocyte chemoattractant protein; MCP-1; mutant; restenosis;
 KW angioplasty.
 OS Homo sapiens.
 FT Key Location/Qualifiers
 FT modified_site 28
 FT disulfide_bond 11..36
 FT disulfide_bond 12..52
 PN WO9513295-A1.
 PD 18-MAY-1995.
 PF 07-NOV-1994; U12874.
 PR 12-NOV-1993; US-152301.
 PA (DAND) DANA FARBER CANCER INST INC.
 PI Rollins B, Zhang YJ;
 DR WPI; 95-215051/28.
 PT Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are
 PT capable of inhibiting the monocyte chemo-attractant activity of
 PT endogenous MCP-1 and can be used to treat restenosis
 PS Claim 3; Page 11; 22pp; English.
 CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
 CC that they inhibit the monocyte chemoattractant activity of endogenous
 CC MCP-1, provided that the derivative has not been modified by the
 CC substitution of 28-Tyr by leu and/or 30-Arg by Val. Preferred mutations
 CC are: (1) substitution of 28-Tyr by aspartate; (2) substitution of 24 Arg
 CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
 CC acids 2-8. The present sequence is a specifically claimed human MCP-1
 CC derivative based on the parent protein disclosed in Rollins, Molecular
 CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
 CC The peptides can be used to prevent restenosis, e.g. in patients
 CC undergoing coronary artery angioplasty.
 SQ Sequence 76 AA;

Query Match 94.7%; Score 89; DB 14; Length 76;
 Best Local Similarity 91.7%; Pred. No. 2.57e-02;
 Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 50 eicadpdkqkvwq 61
 ||||| |||||
 QY 1 EICADPSQKRWQ 12

RESULT 13
 ID W1131 standard; protein; 76 AA.
 AC W1131;
 DT 10-JUN-1997 (first entry)
 DE Mature human monocyte chemoattractant protein-1 (MCP-1).
 KW MCP-1; mature chemoattractant protein-1; cytokine; interleukin-8;
 KW IL-8; neutrophil activating peptide; labelling; imaging; targeting;
 KW radionucleide; infection; inflammation; neoplasm; atheromatous lesion;
 OS Homo sapiens.
 FT Key Location/Qualifiers
 FT misc_difference 1 /note="X- any amino acid"
 PN US5605671-A.
 PD 25-FEB-1997.
 PF 05-OCT-1992; 956862.
 PR 05-OCT-1992; US-956863.
 PR 05-OCT-1992; US-956862.
 PR 29-APR-1994; US-235659.
 PA (MLCW) MALLINKRODT MEDICAL INC.
 PI (UNMI) UNIV MICHIGAN.
 PA Kunkel SL, Lyle LR, Strieter RM;
 DR WPI; 97-153541/14.
 PT Radio:labelling neutrophil-activating peptide(s) - for imaging
 PT targeted delivery of radioactive agent
 PS Example 10; Column 19-20; 15pp; English.
 CC W1131 represents mature human monocyte chemoattractant protein-1
 CC (MCP-1). MCP-1 was radionucleide labelled and used in a method for
 CC imaging a target site in vivo in an animal. Labelled MCP-1 was allowed
 CC to accumulate at a target site (having MCP-1 receptors) in the animal
 CC and detected so as to image the target site. Any Cys-Cys or Cys-Xaa-Cys

CC chemokine carrying either iodine-123 or iodine-131 can be used in the
CC method. Especially preferred is neutrophil activating peptide-2 (NAP-2)
CC which recognises interleukin-8 receptors and is labelled with
CC technetium-99m, indium-111, copper-62, rhenium-186 or rhenium-188.
CC The method can be used for imaging a site of infection, inflammation,
CC neoplasm, atherosclerotic lesion or restenosis.
SQ Sequence 76 AA;

Query Match 94.7%; Score 89; DB 21; Length 76;
Best Local Similarity 91.7%; Pred. No. 2.57e-02;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 50 eicadpdkqkwq 61
| | | | | | | | | |
QY 1 EICADPSQKWQ 12

RESULT 14
ID R87677 standard; protein; 76 AA.
AC R87677;
DT 21-FEB-1996 (first entry)
DE (3-ALA) MCP-1.
KW monocyte chemoattractant protein; MCP-1; mutant; restenosis;
KM angioplasty.
OS Homo sapiens.
FH Key Location/Qualifiers
FT modified_site 3 /note= "Asp in the native sequence is replaced by Ala"
FT disulfide_bond 11..36
FT disulfide_bond 12..52
PN WO9513295-A1.
PD 18-MAY-1995.
PF 07-NOV-1994; U12874.
PR 12-NOV-1993; US-152301.
PQ (DAND) DANA FARBER CANCER INST INC.
PI Rollins B, Zhang YJ;
DR WPI: 95-215051/28.
PI Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are
PI capable of inhibiting the monocyte chemo-attractant activity of
PI endogenous MCP-1 and can be used to treat restenosis
PS Clam 6; Page 11; 22pp; English.
CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
CC MCP-1, provided that the derivative has not been modified by the
CC substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
CC are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg
CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
CC acids 2-8. The present sequence is a specifically claimed human MCP-1
CC derivative based on the parent protein disclosed in Rollins, Molecular
CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
CC The peptides can be used to prevent restenosis, e.g. in patients
CC undergoing coronary artery angioplasty.
SQ Sequence 76 AA;

Query Match 94.7%; Score 89; DB 14; Length 76;
Best Local Similarity 91.7%; Pred. No. 2.57e-02;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 50 eicadpdkqkwq 61
| | | | | | | | | |
QY 1 EICADPSQKWQ 12

RESULT 15
ID P90292 standard; peptide; 76 AA.
AC P90292;
DT 17-JAN-1990 (first entry)
DE Peptide from human glioma cell line U-105MG.
KW Glioma; leucocyte; chemotaxis; neoplasms.
OS Human.
FH Key Location/Qualifiers
FT modified_site 1 /label= OTHER

FN US7304234-A. /note= "pyroglutamic acid"
PN 20-JUL-1989.
PD 31-JAN-1989; 030423.
PF 31-JAN-1989; US-304234.
PR 31-JAN-1989; US-304234.
PA (USSH) US Dept. of Health and Human.
PI Yoshimura T; Robinson E; Appella E; Leonard E.
DR WPI: 89-263501/36.
PT New peptide with specific chemotactic activity for monocytes - isolated
PT from glioma or leucocyte cells, useful for treating infections and
PT neoplasms.
PS Disclosure: page 3; 46pp; English.
CC Peptide is derived from glioma cell line U-105MG (ATCC CRL9332) or from
CC leukocytes and has mol. wt. 8400. Used to treat infections and neoplasms.
SQ Sequence 76 AA;

Query Match 94.7%; Score 89; DB 1; Length 76;
Best Local Similarity 91.7%; Pred. No. 2.57e-02;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 50 eicadpdkqkwq 61
| | | | | | | | | |
QY 1 EICADPSQKWQ 12

RESULT 16
ID R87680 standard; protein; 76 AA.
AC R87680;
DT 05-MAR-1996 (first entry)
DE Monocyte chemotactic activating factor for use as wound remedy.
KW monocyte chemotactic activating factor; MCAF; wound remedy.
OS Homo sapiens.
PN WO9507710-A1.
PD 23-MAR-1995.
PF 13-SEP-1994; J01512.
PR 13-SEP-1993; JP-227385.
PQ (TORA) TORAY IND INC.
PI Matsushima K; Naruto M;
DR WPI: 95-11181/17.
PT Wound treatment using monocyte chemotactic factor - has potent
PT therapeutic effect on skin wounds and ulcers
PS Disclosure: Page 12; 22pp; Japanese.
CC The invention relates to a new remedy for curing wounds which, instead
CC of comprising a growth factor, comprises a monocyte chemotactic
CC activating factor (MCAF) or its variants or derivatives. The factor has
CC potent effect on skin wounds and ulcers. The present sequence is human
CC MCAF, the activity of which is exemplified as the new remedy.
SQ Sequence 76 AA;

Query Match 94.7%; Score 89; DB 15; Length 76;
Best Local Similarity 91.7%; Pred. No. 2.57e-02;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 50 eicadpdkqkwq 61
| | | | | | | | | |
QY 1 EICADPSQKWQ 12

RESULT 17
ID R28660 standard; Protein; 76 AA.
AC R28660;
DT 24-MAR-1993 (first entry)
DE MCF.
KW Plasmid; monocyte chemotactic factor; MCF; translation;
KW termination; terminator; initiation; ribosome binding site;
KW RBS; promoter; tryptophan; repressor.
OS Synthetic.
PN WO9219737-A.
PD 12-NOV-1992.
PF 27-APR-1992; J00550.
PR 09-MAY-1991; JP-135950.
PQ (DAIN) DAINIPPON PHARM CO LTD.
PI Fukui T, Matsuo N, Yamada M, Yamagishi J;

DR WPI: 92-398864/48.
 DR N-PSDB: Q20745-46.
 PT Prodn. of polypeptide(s) having monocyte chemotactic activity -
 PT using expression plasmids with E. coli elements and specific
 PT E. coli strains
 PS Claim 1: Page 48 + Page 36; 56pp; English.
 CC An expression plasmid, pHM483, for producing MCF(76) consisting
 CC of 76 amino acids was constructed. The prod. can be used for e.g.
 CC treating bacterial infectious diseases.
 SQ Sequence 76 AA;

Query Match 94.7%; Score 89; DB 5; Length 76;
 Best Local Similarity 91.7%; Pred. No. 2.57e-02;
 Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 50 elcadpdkxkwq 61
 ||||| |||||
 OY 1 EICADPSQKXWQ 12

RESULT 18
 ID R86859 standard; Protein; 77 AA.
 AC R86859;
 DT 20-MAR-1996 (first entry)
 DE Mature MCP-1.
 KW Antisense; monocyte chemotactic protein-1; MCP-1;
 KW "C-C" family; chemottractant cytokine; chemokine; stimulation;
 KW monocyte; chemotaxis; vascular smooth muscle cell; macrophage;
 OS proliferation; restenosis; balloon angioplasty.
 PN M09519167-A1.
 PD 20-JUL-1995.
 PF 13-JAN-1995; U00605.
 PR 14-JAN-1994; US-182917.
 PA (MLCW) MALLINCKRODT MEDICAL INC.
 PI Lyle LR, Thomas-Miller B;
 DR WPI: 95-263703/34.
 DR N-PSDB: T03528.

PT New anti:sense oligo:nucleotide(s) and peptide(s) for inhibiting
 PT restenosis - are directed against C-C family cytokine(s) such as
 PT monocyte chemotactic protein, opt. radio:labelled for therapy or
 PT imaging
 PS Disclosure: Page 5; 50pp; English.
 CC This sequence represents the mature form of monocyte chemotactic
 CC protein-1 (MCP-1). MCP-1 is a member of the "C-C" family of
 CC chemottractant cytokines or chemokines. It is a potent stimulator
 CC of monocyte chemotaxis and has an extremely high degree of specificity
 CC for this cell type. MCP-1 is produced by injured vascular smooth muscle
 CC cells and attracts the monocytes and macrophages which infiltrate the
 CC area, releasing growth factors and resulting in proliferation of vascular
 CC smooth muscle and restenosis. Nucleic acid molecules which are antisense
 CC to the MCP-1 mRNA may be used to inhibit translation of MCP-1 and so may
 CC be useful for inhibiting vascular restenosis, partic. following balloon
 CC angioplasty or a related process. The molecule may be radiolabelled to
 CC increase its therapeutic effect or for imaging areas of potential
 CC restenosis.
 SQ Sequence 77 AA;

Query Match 94.7%; Score 89; DB 15; Length 77;
 Best Local Similarity 91.7%; Pred. No. 2.57e-02;
 Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 51 elcadpdkxkwq 62
 ||||| |||||
 OY 1 EICADPSQKXWQ 12

RESULT 19
 ID R73914 standard; protein; 99 AA.
 AC R73914;
 DT 05-DEC-1995 (first entry)
 DE Human monocyte chemottractant factor hMCP-1.
 KW Human monocyte chemottractant factor; hMCP-1; chemokine; vaccine;

KW meningitis related homologous antigenic sequence; MRHAS; RV-1;
 KW Immunassay; diagnosis; treatment; prophylactic; bacterial;
 KW viral.
 OS Homo sapiens.
 PN M09509232-A.
 PD 06-APR-1995.
 PF 28-SEP-1994; CA0516.
 PR 28-SEP-1993; US-127499.
 PA (SHAR/) SHARMA L. R.
 PA (VALS/) VAN ALSTYNE D.
 PI Sharma LR, Van Alstyne D;
 DR WPI: 95-147431/19.
 PT New peptide(s) and corresp. antibodies for the treatment of
 PT meningitis - the peptide(s) corresp. to homologous antigenic
 PT sites on bacterial and viral agents and on chemokine(s), used for
 PT detecting and preventing meningitis
 PS Claim 47: Fig 8/10; 98pp; English.
 CC R73914 is the chemokine Human monocyte chemottractant factor hMCP-1.
 CC It contains the meningitis related antigenic sequences (MRHAS) claimed
 CC in R73895 and R73907, which are recognised by a monoclonal antibody
 CC from the hybridoma Rubella virus (RV)-1. The claimed MRHAS peptides
 CC may be used in immunoassays to diagnose the presence of bacterial
 CC and/or viral meningitis agents in a sample, or in prophylactic and
 CC therapeutic meningitis treatments. The peptides may also be used as
 CC vaccines against meningitis.
 CC NB: Identified by matching corresponding MRHAS peptides.
 SQ Sequence 99 AA;

Query Match 94.7%; Score 89; DB 14; Length 99;
 Best Local Similarity 91.7%; Pred. No. 2.57e-02;
 Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 73 elcadpdkxkwq 84
 ||||| |||||
 OY 1 EICADPSQKXWQ 12

RESULT 20
 ID R28663 standard; Protein; 99 AA.
 AC R28663;
 DT 24-MAR-1993 (first entry)
 DE MCF.
 KW Plasmid; monocyte chemotactic factor; MCF; translation;
 KW termination; terminator; initiation; ribosome binding site;
 KW RBS; promoter; tryptophan; repressor.
 OS Synthetic.
 FH Key Location/Qualifiers
 FT peptide 1..23
 FT /label- sig_peptide
 FT 24..99
 FT protein /label- mat_protein

FN M09219737-A.
 PD 12-NOV-1992.
 PD 27-APR-1992; J00550.
 PR 09-MAY-1991; JP-135950.
 PA (DAIN) DAINIPON PHARM CO LTD.
 PI Fukui T, Matsuo N, Yamada M, Yamagishi J;
 DR WPI: 92-398864/48.
 DR N-PSDB: Q30748.
 PT Prodn. of polypeptide(s) having monocyte chemotactic activity -
 PT using expression plasmids with E. coli elements and specific
 PT E. coli strains
 PS Disclosure: Page 43-44; 56pp; English.
 CC An expression plasmid, pHMC076 for producing MCF(76) consisting
 CC of 76 amino acids was constructed. DNA encoding MCF(76) was
 CC prepd. using a recombinant plasmid pMCF7.
 SQ Sequence 99 AA;

Query Match 94.7%; Score 89; DB 5; Length 99;
 Best Local Similarity 91.7%; Pred. No. 2.57e-02;
 Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 73 elcadpdkxkwq 84

QY 1 EICADPSQKMWQ 12

RESULT 21
ID R70800 standard; Protein; 99 AA.
AC R70800;

DE 28-AUG-1995 (first entry)
KW MCP-1; Chemottractant; heparanase; heparin; heparan sulfate;
arthritis; restenosis; cancer; wound healing.
OS Homo sapiens.
PN M09504158-A.
PF 09-FEB-1995.
PR 26-JUL-1994; U08207.
PR 28-JUL-1993; US-099866.
PR 13-OCT-1993; US-136117.
PA (UPJO) UPJOHN CO.
PI Hoogwerf AJ, Ledbetter SR;
DR WPI: 95-082339/11.
DR N-PSDB; 085370.
PT Screening for cpds. with anti-heparanase activity - by detecting
inhibition of heparin or heparan sulphate degradation,
PT potentially useful for treating arthritis, restenosis, cancer.
PS Claim 13; Page 49; 60pp; English.
CC Purified heparanases, prepared under reducing conditions and
activated with transglutaminase, are given in R70786-804. Most
are prepared by reverse transcription of mRNA from activated human
leukocytes, then cloning of the cDNA into pVL1392 baculovirus
CC vector, and expression in sf9 cells in the presence of reduced
CC glutathione and dithiothreitol.
SQ Sequence 99 AA;

Query Match 94.7%; Score 89; DB 13; Length 99;
Best Local Similarity 91.7%; Pred. No. 2.57e-02;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 73 eicadpkykwyg 84
1 EICADPSQKMWQ 12

RESULT 22
ID P95387 standard; protein; 99 AA.
AC P95387;
DE 25-JUL-1989 (first entry)
KW Human monocyte chemo-attractant peptide-1.
OS Homo sapiens.
FH Key Location/Qualifiers
FT protein 24..99
FT /product-MCP-1
PN US7330446-A.
PD 25-JUL-1989; 330446.
PF 30-MAR-1989; 330446.
PR 30-MAR-1989; US-330446.
PA (USSH) US Dept. Health and Human.
PI Yoshimura T, Robinson EA, Appella E, Leonard EJ;
DR WPI: 89-300683/41.
DR N-PSDB; N91337.
PT Human derived monocyte chemo-attractant peptide prods. - obtd. from human
PT glioma cell line U-105WG or peripheral blood mononuclear leukocytes.
PS disclosure; fig 2; 66pp; English.
CC This is a human-derived monocyte chemo-attractant peptide (MCP-1) sequence
CC MCP-1 exhibits optimal chemotactic activity at a concn. of 1nM and has a
CC mol. mass of c.a. 8,400 D. MCP-1 can be used for treating infection eg
CC inflammatory disease, or for the control of neoplasms by accumulation of
CC monocytes at the site of the infection. The corresp. DNA is obtd. by
CC chemical synthesis, by screening reverse transcripts of mRNA from
CC purified blood leukocytes or cell cultures of eg U-373 MG or KMG-5.
SQ Sequence 99 AA;

Query Match 94.7%; Score 89; DB 2; Length 99;

Best Local Similarity 91.7%; Pred. No. 2.57e-02;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 73 eicadpkykwyg 84
1 EICADPSQKMWQ 12

RESULT 23
ID W22675 standard; Protein; 71 AA.
AC W22675;
DE 19-MAR-1998 (first entry)
KW Drol3+ chemokine beta10 or monocyte chemotactic protein 4 variant.
KW Human; chemokine beta10; Ck beta10; treatment; antagonist;
KW solid tumour; infection; autoimmune disease; asthma; antibody;
KW fibrotic disease; psoriasis; neurodegenerative disease;
KW wound healing; haematopoiesis regulation; gene therapy;
KW chromosome identification; monocyte chemotactic protein 4;
KW leukemia; MCP-4; Drol3+ variant.
OS Homo sapiens.
PN M09731098-A1.
PD 28-AUG-1997.
PF 23-FEB-1996; U02598.
PR 23-FEB-1996; WO-U02598.
PA (HUMA-) HUMAN GENOME SCI INC.
PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
PI Parmelee D, White J;
DR WPI: 97-435153/40.
PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
PT protein 4 - useful to treat tumours, autoimmune disease, infection,
PT asthma and fibrosis
PS Example 11; Fig 5; 83pp; English.
CC The present sequence is human chemokine beta10 (Ck beta10) or
CC monocyte chemotactic protein 4 (MCP-4) Drol3+ variant, which can
CC be used to treat patients deficient in Ck beta10, while a Ck beta10
CC antagonist can be used to reduce excessive levels of Ck beta10. Ck
CC beta10 can be used to treat leukemia, solid tumours, chronic or
CC opportunistic infections, autoimmune diseases, asthma, fibrotic
CC diseases, psoriasis and neurodegenerative diseases. It also
CC promotes wound healing, regulates haematopoiesis and generates
CC antipodles. Labelled Ck beta10 can be used to identify its cognate
CC receptor, while cells expressing the receptor can be used to screen
CC compounds for (ant)agonist activity. The antagonist can be used to
CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
CC infectious diseases, allergies, prostaglandin dependent fever and
CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
CC syndrome, lung inflammation and atherosclerosis. Ck beta10 cDNA can
CC be used to isolate genes encoding similar peptides, in gene therapy
CC and for chromosome identification.
SQ Sequence 71 AA;

Query Match 90.4%; Score 85; DB 27; Length 71;
Best Local Similarity 83.3%; Pred. No. 6.85e-02;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 45 eicadpkykwyg 56
1 EICADPSQKMWQ 12

RESULT 24
ID W22673 standard; Protein; 75 AA.
AC W22673;
DE 19-MAR-1998 (first entry)
KW BAC 3 chemokine beta10 or monocyte chemotactic protein 4 variant.
KW Human; chemokine beta10; Ck beta10; treatment; antagonist;
KW solid tumour; infection; autoimmune disease; asthma; antibody;
KW fibrotic disease; psoriasis; neurodegenerative disease;
KW wound healing; haematopoiesis regulation; gene therapy;
KW chromosome identification; monocyte chemotactic protein 4;
KW leukemia; MCP-4; BAC 3 variant.
OS Homo sapiens.
PN M09731098-A1.

PD 28-AUG-1997. U02598.
PF 23-FEB-1996; WO-U02598.
PA (HUMA-) HUMAN GENOME SCI INC.
PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
PI Parmelee D, White J;
DR WPI: 97-43513/40.
PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
protein 4 - useful to treat tumours, autoimmune disease, infection,
PT asthma and fibrosis
PS Example 11: Fig 5: 83pp; English.
CC The present sequence is human chemokine beta10 (CK beta10) or
CC monocyte chemotactic protein 4 (MCP-4) Bac 3 variant, which can be
CC used to treat patients deficient in CK beta10, while a CK beta10
CC antagonist can be used to reduce excessive levels of CK beta10. CK
CC beta10 can be used to treat leukaemia, solid tumours, chronic or
CC opportunistic infections, autoimmune diseases, asthma, fibrotic
CC diseases, psoriasis and neurodegenerative diseases. It also
CC promotes wound healing, regulates haematopoiesis and generates
CC antibodies. Labelled CK beta10 can be used to identify its cognate
CC receptor, while cells expressing the receptor can be used to screen
CC compounds for (ant)agonist activity. The antagonist can be used to
CC treat Rheumatoid arthritis, autoimmune, chronic inflammatory or
CC infectious diseases, allergies, prostaglandin dependent fever and
CC bone marrow failure, sickle cell, sarcoidosis, hyper-eosinophilic
CC syndrome, lung inflammation and atherosclerosis. CK beta10 cDNA can
CC be used to isolate genes encoding similar peptides, in gene therapy
CC and for chromosome identification.
SQ Sequence 75 AA;

Query Match 90.4%; Score 85; DB 27; Length 75;
Best Local Similarity 83.3%; Pred. No. 6.85e-02;

Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 49 eicadpkckvq 60
|||||:||||
Oy 1 EICADPSQKQWQ 12

RESULT 25
ID W22672 standard; Protein: 77 AA.
AC W22672;
DE 19-MAR-1998 (first entry)
KW Human; chemokine beta10; CK beta10; treatment; antagonist;
KW solid tumour; infection; autoimmune disease; asthma; antibody;
KW fibrotic disease; psoriasis; neurodegenerative disease;
KW wound healing; haematopoiesis regulation; gene therapy;
KW chromosome identification; monocyte chemotactic protein 4;
KW leukaemia; MCP-4; Bac 2 variant.
OS Homo sapiens.
PN WO9731098-A1.
PD 28-AUG-1997.
PF 23-FEB-1996; U02598.
PA (HUMA-) HUMAN GENOME SCI INC.
PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
PI Parmelee D, White J;
DR WPI: 97-43513/40.
PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
protein 4 - useful to treat tumours, autoimmune disease, infection,
PT asthma and fibrosis
PS Example 11: Fig 5: 83pp; English.
CC The present sequence is human chemokine beta10 (CK beta10) or
CC monocyte chemotactic protein 4 (MCP-4) Bac 2 variant, which can be
CC used to treat patients deficient in CK beta10, while a CK beta10
CC antagonist can be used to reduce excessive levels of CK beta10. CK
CC beta10 can be used to treat leukaemia, solid tumours, chronic or
CC opportunistic infections, autoimmune diseases, asthma, fibrotic
CC diseases, psoriasis and neurodegenerative diseases. It also
CC promotes wound healing, regulates haematopoiesis and generates
CC antibodies. Labelled CK beta10 can be used to identify its cognate
CC receptor, while cells expressing the receptor can be used to screen

CC compounds for (ant)agonist activity. The antagonist can be used to
CC treat Rheumatoid arthritis, autoimmune, chronic inflammatory or
CC infectious diseases, allergies, prostaglandin dependent fever and
CC bone marrow failure, sickle cell, sarcoidosis, hyper-eosinophilic
CC syndrome, lung inflammation and atherosclerosis. CK beta10 cDNA can
CC be used to isolate genes encoding similar peptides, in gene therapy
CC and for chromosome identification.
SQ Sequence 77 AA;

Query Match 90.4%; Score 85; DB 27; Length 77;
Best Local Similarity 83.3%; Pred. No. 6.85e-02;

Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 51 eicadpkckvq 62
|||||:||||
Oy 1 EICADPSQKQWQ 12

RESULT 26
ID W22674 standard; Protein: 79 AA.
AC W22674;
DE 19-MAR-1998 (first entry)
KW Human; chemokine beta10; CK beta10; treatment; antagonist;
KW solid tumour; infection; autoimmune disease; asthma; antibody;
KW fibrotic disease; psoriasis; neurodegenerative disease;
KW wound healing; haematopoiesis regulation; gene therapy;
KW chromosome identification; monocyte chemotactic protein 4;
KW leukaemia; MCP-4; Drol1/2 variant.
OS Homo sapiens.
PN WO9731098-A1.
PD 28-AUG-1997.
PF 23-FEB-1996; U02598.
PA (HUMA-) HUMAN GENOME SCI INC.
PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
PI Parmelee D, White J;
DR WPI: 97-43513/40.
PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
protein 4 - useful to treat tumours, autoimmune disease, infection,
PT asthma and fibrosis
PS Example 11: Fig 5: 83pp; English.

CC The present sequence is human chemokine beta10 (CK beta10) or
CC monocyte chemotactic protein 4 (MCP-4) Drol1/2 variant, which can
CC be used to treat patients deficient in CK beta10, while a CK beta10
CC antagonist can be used to reduce excessive levels of CK beta10. CK
CC beta10 can be used to treat leukaemia, solid tumours, chronic or
CC opportunistic infections, autoimmune diseases, asthma, fibrotic
CC diseases, psoriasis and neurodegenerative diseases. It also
CC promotes wound healing, regulates haematopoiesis and generates
CC antibodies. Labelled CK beta10 can be used to identify its cognate
CC receptor, while cells expressing the receptor can be used to screen
CC compounds for (ant)agonist activity. The antagonist can be used to
CC treat Rheumatoid arthritis, autoimmune, chronic inflammatory or
CC infectious diseases, allergies, prostaglandin dependent fever and
CC bone marrow failure, sickle cell, sarcoidosis, hyper-eosinophilic
CC syndrome, lung inflammation and atherosclerosis. CK beta10 cDNA can
CC be used to isolate genes encoding similar peptides, in gene therapy
CC and for chromosome identification.
SQ Sequence 79 AA;

Query Match 90.4%; Score 85; DB 27; Length 79;
Best Local Similarity 83.3%; Pred. No. 6.85e-02;

Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 53 eicadpkckvq 64
|||||:||||
Oy 1 EICADPSQKQWQ 12

RESULT 27
ID W22671 standard; Protein: 82 AA.
AC W22671;

DE 19-MAR-1998 (first entry)
 DE Bac 1 chemokine beta10 or monocyte chemotactic protein 4 variant.
 KW Human; chemokine beta10; CK beta10; treatment; antagonist;
 KW solid tumour; infection; autoimmune disease; asthma; antibody;
 KW fibrotic disease; psoriasis; neurodegenerative disease;
 KW wound healing; haematopoiesis regulation; gene therapy;
 KW chromosome identification; monocyte chemotactic protein 4;
 KW leukaemia; MCP-4; Bac 1 variant.
 OS Homo sapiens.
 PN W09731096-A1.
 PD 28-AUG-1997.
 PF 23-FEB-1996; WO-02598.
 PR 23-FEB-1996; WO-02598.
 PA (HUMA-) HUMAN GENOME SCI INC.
 PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
 PI Parmelee D, White J;
 DR WPI; 97-435153/40.
 PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
 PT protein 4 - useful to treat tumours, autoimmune disease, infection,
 PT asthma and fibrosis
 PS Example 11; Fig 5; 83pp; English.
 CC The present sequence is human chemokine beta10 (CK beta10) or
 CC monocyte chemotactic protein 4 (MCP-4) Bac 1 variant, which can be
 CC used to treat patients deficient in CK beta10, while a CK beta10
 CC antagonist can be used to reduce excessive levels of CK beta10. CK
 CC beta10 can be used to treat leukaemia, solid tumours, chronic or
 CC opportunistic infections, autoimmune diseases, asthma, fibrotic
 CC diseases, psoriasis and neurodegenerative diseases. It also
 CC promotes wound healing, regulates haematopoiesis and generates
 CC antibodies. Labelled CK beta10 can be used to identify its cognate
 CC receptor, while cells expressing the receptor can be used to screen
 CC compounds for (ant)agonist activity. The antagonist can be used to
 CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
 CC infectious diseases, allergies, prostaglandin dependent fever and
 CC bone marrow failure, sickle cell, sarcoidosis, hyper-eosinophilic
 CC syndrome, lung inflammation and atherosclerosis. CK beta10 cDNA can
 CC be used to isolate genes encoding similar peptides, in gene therapy
 CC and for chromosome identification.
 SO Sequence 82 AA;

Query Match 90.4%; Score 85; DB 27; Length 82;
 Best Local Similarity 83.3%; Pred. No. 6.85e-02;
 Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 56 eicadpkekwyg 67
 |||||:||||
 QY 1 EICADPSQKRWQ 12

RESULT 28
 ID W17665 standard; peptide; 82 AA.
 AC W17665;
 DT 16-DEC-1997 (first entry)
 DE Stem cell mobilising chemokine CKbeta-10.
 KW Hematopoietic cell; parasitic infection; colony stimulating factor;
 KW hematopoietic cell; immune response; bacterial infection; transplant;
 KW wound healing; bone marrow; immunosuppression; regeneration;
 KW neoplastic disease; viral disease; gene therapy; cytotoxic drug.
 OS Synthetic.
 PN W09715594-A1.
 PD 01-MAY-1997.
 PF 23-OCT-1996; U16959.
 PR 24-OCT-1995; US-006051.
 PA (SMIK) SMITHKLINE BEECHAM CORP.
 PI Kreider BL, Li H, Pelus L, White JR;
 DR WPI; 97-258956/23.
 PT Ten new chemokine(s) able to mobilise stem cells - used where
 PT increased levels of haematopoietic cells are required, e.g. to
 PT increase resistance to infection
 PS Claim 7; Page 11-12; 24pp; English.
 CC The present sequence represents a chemokine, CKbeta-10, which is capable
 CC of mobilising stem cells. The chemokine can be used therapeutically to
 CC improve stem cell mobilisation, optionally together with a colony

CC stimulating factor or other haematoregulatory agent. It can be used
 CC wherever an increased level of haematopoietic cells is needed, e.g. to
 CC increase the immune response to chronic infection (particularly
 CC bacterial or parasitic), to promote wound healing, in (transplant)
 CC patients with reduced bone marrow function as a result of
 CC immunosuppressive treatment or disease, and to provide more rapid
 CC regeneration of bone marrow after treatment for neoplastic or viral
 CC diseases. The induced stem cells may be harvested for subsequent return
 CC to the patient, optionally after they have been genetically manipulated
 CC to deliver a selected gene product (gene therapy). The cells may be
 CC co-administered with a cytotoxic drug.
 SO Sequence 82 AA;

Query Match 90.4%; Score 85; DB 24; Length 82;
 Best Local Similarity 83.3%; Pred. No. 6.85e-02;
 Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 56 eicadpkekwyg 67
 |||||:||||
 QY 1 EICADPSQKRWQ 12

RESULT 29
 ID R93087 standard; Protein; 98 AA.
 AC R93087;
 DT 27-AUG-1996 (first entry)
 DE Human chemokine beta-10.
 KW Chemokine beta-10; chemokine beta-4; CK beta-10; CK beta-4;
 KW cytokine; leukaemia; tumour; cancer; autoimmune disease; psoriasis;
 KW asthma; allergy; wound healing; diagnosis; therapy.
 OS Homo sapiens.
 FH Key
 FH peptide Location/Qualifiers
 FT /label= Sig_peptide
 FT protein 25..98
 FT /label= Mat_protein
 PN W09605856-A1.
 PD 29-FEB-1996.
 PF 23-AUG-1994; U09484.
 PR 23-AUG-1994; WO-U09484.
 PR 08-SEP-1994; ZA-006936.
 PA (HUMA-) HUMAN GENOME SCI INC.
 PI Adams MD, Li H;
 DR WPI; 96-151145/15.
 DR N-PSDB; T17050.
 PT New chemokine CK(beta)-4 and -10 genes and polypeptide(s) - useful
 PT to treat, e.g. leukaemia, solid tumours and auto-immune diseases
 PS Claim 19; Fig 2; 53pp; English.
 CC A novel human chemokine, CK beta-10 (R93087), was identified as
 CC the product of a cDNA clone (T17050) isolated from a 9-wk early
 CC human tissue cDNA library. The protein is structurally related to
 CC the chemokine family. Recombinant CK beta-10 can be obtd. by
 CC incorporating the cDNA into a vector and expression of the protein
 CC in e.g. E. coli, COS or Sf9 cells. CK beta-10 can be used to treat
 CC solid tumours, chronic infections, psoriasis, asthma and allergy,
 CC to regulate haematopoiesis, promote wound healing, and to inhibit
 CC angiogenesis. It can also be used to inhibit bone marrow stem cell
 CC colony form. during chemotherapy.
 SO Sequence 98 AA;

Query Match 90.4%; Score 85; DB 17; Length 98;
 Best Local Similarity 83.3%; Pred. No. 6.85e-02;
 Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 72 eicadpkekwyg 83
 |||||:||||
 QY 1 EICADPSQKRWQ 12

RESULT 30
 ID W30191 standard; Protein; 98 AA.
 AC W30191;
 DT 21-MAY-1998 (first entry)

DE Monocyte chemotactic protein 5; MCP-5; human; macrophage;
 KM Monocyte chemotactic protein 5; MCP-5; human; macrophage;
 KW Chemokine; inhibitor; antiinflammatory; atherosclerosis;
 KM Crohn's disease; arthritis; angiogenesis; tumour; metastasis;
 KW therapy; diagnosis; medical imaging.
 OS Homo sapiens.
 FH Key Location/Qualifiers
 FI Peptide 1..23
 FI /label= Sig_peptide
 FI Protein 24..98
 FI /label= Mat.protein
 FI /note= "(Claim 4)"
 PN MO9735982-A2.
 PD 02-OCT-1997.
 PF 26-MAR-1997; U04898.
 PR 27-MAR-1996; US-622851.
 PA (ICOS-) ICOS CORP.
 PI Godiska R, Gray PM;
 DR WPI: 97-489645/45.
 DR N-PSDB: T90880.
 FT Polynucleotide encoding monocyte chemotactic protein-5 - useful in
 PT treatment of e.g. inflammation, atherosclerosis, angiogenesis and
 PT tumours
 PS Claim 1: Page 36-37; 47pp; English.
 CC This polypeptide comprises human macrophage-derived
 CC monocyte chemotactic protein-5 (MCP-5), a novel C-C chemokine.
 CC Its amino acid sequence was deduced from a cDNA clone (see
 CC T90880 and T90883) isolated from a human macrophage cDNA
 CC library. A claimed method for producing MCP-5 comprises
 CC culturing a host cell that is stably transformed or transfected
 CC with MCP-5 polynucleotide. Also claimed is a hybridoma that
 CC produces a monoclonal antibody (MAb) that is specifically
 CC reactive with the mature MCP-5. MCP-5 (or its analogues and
 CC fragments) is used to enhance the immune response in cases of
 CC wounds or infections, while its inhibitors (e.g. the MAb) are
 CC useful as anti-inflammatory in cases of e.g. arthritis and
 CC Crohn's disease, also for treatment of atherosclerosis,
 CC angiogenesis and tumour growth (or metastasis). The MCP-5
 CC inhibitors can possibly also be used to reduce the damaging effects
 CC of chemo- and radio-therapy on myeloid progenitor cells, and to
 CC inhibit replication of HIV. MCP-5 can also be used to identify
 CC its cognate receptor, while MCP-5 peptides (or the analogues or
 CC receptors) are used to modulate MCP-5 activity and to identify
 CC MCP-5 agonists and antagonists.
 SQ Sequence 98 AA;

Query Match 90.4%; Score 85; DB 28; Length 98;

Best Local Similarity 83.3%; Pred. No. 6.85e-02;

Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 72 eicadpkekavq 83

0y 1 EICADPSQKMWQ 12

Search completed: Thu Apr 1 07:38:42 1999
 Job time : 21 secs.

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97	49	52.1	843	1	H4A0016	eny polyprotein precu	6.08e+01
98	49	52.1	925	2	A35216	plasma cell membrane	6.08e+01
99	49	52.1	1032	2	A57514	RNA helicase HEL17 -	6.08e+01
100	49	52.1	1827	1	U08U	sucrose alpha-glucosyl	6.08e+01

ALIGNMENTS

RESULT	1	
ENTRY	A54678	#type complete
TITLE	monocyte chemotactic protein 3 precursor - human	
ALTERNATE_NAMES	monocyte chemoattractant protein MCP-3	
ORGANISM	#formal name Homo sapiens #common name man	
DATE	28-Oct-1994	#sequence_revision 28-Oct-1994 #text_changed 0

ACCESSIONS	A54678; JCI478; S32222
REFERENCE	A54678

#Journal	Genomics (1994) 21:403-408
#Title	The human MCP-3 gene (SCYA7): cloning, sequence analysis, and assignment to the C-C chemokine gene cluster on chromosome 17q11.2-q12.

```

#accession A54678
##molecule_type DNA
##residues 1-109 ##label OPD
##cross-references GB:X72309
REFERENCE
JC1478

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#journal #title	journal	year	pages
1	Biochem. Biophys. Res. Commun.	1993	191:535-542
2	Human monocyte chemotactic protein-3 (MCP-3): Molecular cloning of the cDNA and comparison with other chemokines.	1994	70:176

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#accession JC1478
##molecule_type mRNA
##residues 1-109 ##label OP2
REFERENCE S32222

```

#authors Minty, A.; Chazou, P.; Guillemot, J.-C.; Kaghad, M.; Lauzun, P.; Magazian, M.; Miloux, B.; Minty, C.; Ramond, P.; Vite, N.; Lupher, J.; Shire, D.; Ferrara, P.; Caput, D.
#submission submitted to the EMBL Data Library March 1993
#description Molecular cloning of MCP-3: a human monocyte-derived monocyte/chemoattractant protein.
#accession S32222

COMMENT This protein induces proteinase secretion and chemotaxis by
#Cross-references EMBL:X71087; NID:g2288336; PID:g2283397

GENETICS

```
#gene      GDB:SCYA7; SCYA6; MCP-3
#cross-references GDB:138473; OMIM:158106
```

CLASSIFICATION	#superfamily macrophage inflammatory protein
KEYWORDS	cytokine; glycoprotein; inflammation
FEATURE	

1-33	#domain signal sequence	#status predicted	#label SIG
34-109	#product monocyte chemotactic protein 3	#status predicted	#label MAT\
39	#binding_site carboxylate (Asn)	(covalent)	#status predicted
SUMMARY	#length 109	#molecular-weight 12336	#checksum 1355

Query Match	97.98;	Score 92;	DB 2;	Length 109;
Best Local Similarity	91.78;	Pred. No. 1.73e-07;		
Matches	11;	Conservative	1;	Mismatches 0;
			Indels	0;
			Gaps	0;

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Db      83 EICADPTQKWVQ 94
        |||||:|||||
QY      1 EICADPSQKWVQ 12

```

RESULT	2	I48147	#type complete
ENTRY		monocyte chemoattractant protein-1	- guinea pig
TITLE		#formal_name	CaVia porcellus #common_name guinea pig
ORGANISM		02-Jul-1996	#sequence_revision 02-Jul-1996 #text_change
DATE		00-45444-1007	

ACCESSIONS

```
#authors      Yoshimura, T.
#journal      J. Immunol. (1993) 150:5025-5032
#title        cDNA cloning of guinea pig monocyte chemoattractant protein-1
              and expression of the recombinant protein.
#cross-references MVID:93267204
#accession    I48147
```

```

#status      preliminary; translated from GB/EMBL/DB
#molecule_type  mRNA
#residues     1-120 ##label RES
#cross-references  GB:L04985; NID:g349820; PID:g349821
GENETICS
CROSS
```

GENETICS

#gene	MCP-1				
CLASSIFICATION	#superfamily	macrophage	inflammatory	protein	
SUMMARY	#length 120	#molecular-weight 13741	#checks	sum 92522	

Query Match	95.7%;	Score 90;	DB 2;	Length 120;
Best Local Similarity	83.3%;	Pred. No. 4.80e-07;		
Matches	10;	Conservative	2;	Mismatches 0;
			Indels	0;
			Gaps	0;

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Db 71 EVCADPTQKWVQ 82
    |:||||:|||||
QY 1 EICADPSQKWVQ 12
```

RESULT 3

ENTRY	A60299	#type complete
TITLE	monocyte chemoattractant protein 1 precursor - human	
ALTERNATE_NAMES	GDCF-1; glioma-derived monocyte chemotactic factor 1; MCAF	

CONTAINS
ORGANISM
DATE
MCP-1; monocye chemotactic factor 1; monocye secret
protein; tumor-derived chemotactic factor
glioma-derived chemotactic factor 2 (GPCF-2)
#formal_name Homo saplens #common_name man
20-Feb-1993 #sequence_revision 20-Feb-1993 #text_changed

DATE _____

ACCESSIONS
A35474; A33476; S03339; I51841; A60299; A32300; A32396;
A34561; I57488; JC1096

#authors	#journal	#title
A35474	Shyy, Y.J.; Li, Y.S.; Kolatukudy, P.E.	Biochem. Biophys. Res. Commun. (1990) 169:346-351
		Structure of human monocyte chemotactic protein g

regulation by TPA.
#cross-references MUID:90290466
#accession A35474

```
##residues      1-99  ##label SHY
##Cross-references GB:M37719; NID:g187447; PID:g487124
REFERENCE      A33476
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#authors
#journal
#title
The human homolog of the JE gene encodes a monocyte secretory protein.
#cross-references MUID:90097880

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##molecule_type mRNA
##residues 1-99 ##label ROL
##cross-references GB:M30816; GB:M31625; GB:M31626; NID:q188701
P1D:q386961
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REFERENCE	S03339
#authors	Yoshimura, T.; Yuhki, N.; Moore, S.K.; Appella, E.; Lerman M.I.; Leonard, E.J.

#title Human monocyte chemoattractant protein-1 (MCP-1). Full-length cDNA cloning, expression in mitogen-stimulated blood mononuclear leukocytes, and sequence similarity to mouse competence gene JE.

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#cross-references M01D:89153605
#accession S03339
#status not compared with conceptual translation
#molecule_type mRNA
#residues 1-99 ##label YOS
#cross-references GB:X14768; NID:934513; PID:934514
#experimental source glioma cell line U-105MG
REFERENCE
#authors Yoshimura, T.; Leonard, E.J.
#journal Adv. Exp. Med. Biol. (1991) 305:47-56
#title Human monocyte chemoattractant protein-1 (MCP-1).
#cross-references M01D:92095166
#accession J51841
#status Preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-99 ##label Y02
#cross-references GB:S71513; NID:9240867; PID:9240868
REFERENCE
#authors Bottazzi, B.; Colotta, F.; Sica, A.; Nobile, N.; Mantovani, A.
#journal Int. J. Cancer (1990) 45:795-797
#title A chemoattractant expressed in human sarcoma cells (tumor-derived chemotactic factor, TDCF) is identical to monocyte chemoattractant protein-1/monocyte chemotactic and activating factor (MCP-1/MCAF).
#accession A60299
#status not compared with conceptual translation
#molecule_type mRNA
#residues 1-99 ##label BOT
REFERENCE
#authors Furutani, Y.; Nomura, H.; Notake, M.; Oyama, Y.; Fukui, T.; Yamada, M.; Larsen, C.G.; Oppenheim, J.J.; Matsushima, K.
#journal Biochem. Biophys. Res. Commun. (1989) 159:249-255
#title Cloning and sequencing of the cDNA for human monocyte chemotactic and activating factor (MCAF).
#cross-references M01D:89165862
#accession A32300
#status not compared with conceptual translation
#molecule_type mRNA
#residues 1-99 ##label FUR
#cross-references GB:M24545; NID:9187434; PID:9307163
REFERENCE
#authors Robinson, E.A.; Yoshimura, T.; Leonard, E.J.; Tanaka, S.; Griffin, P.R.; Shabanowitz, J.; Hunt, D.F.; Appella, E.
#journal Proc. Natl. Acad. Sci. U.S.A. (1989) 86:1850-1854
#title Complete amino acid sequence of a human monocyte chemoattractant, a putative mediator of cellular immune reactions.
#cross-references M01D:89184525
#accession A32396
#molecule_type protein
#residues 'X',25-99 ##label ROB
REFERENCE
#authors De Cock, B.; Conings, R.; Lenaerts, J.P.; Billiau, A.; Van Damme, J.
#journal Biochem. Biophys. Res. Commun. (1990) 167:904-909
#title Identification of the monocyte chemotactic protein from human osteosarcoma cells and monocytes: detection of a novel N-terminally processed form.
#cross-references M01D:90211336
#accession A34561
#molecule_type protein
#residues 29-93, 'XX',36-52;82-92 ##label DEC
REFERENCE
#authors Li, Y.S.; Shyu, Y.J.; Wright, J.G.; Valente, A.J.; Cornhill, J.F.; Kolattukudy, P.E.
#journal Mol. Cell. Biochem. (1993) 126:61-68
#title The expression of monocyte chemotactic protein (MCP-1) in human vascular endothelium in vitro and in vivo.
#cross-references M01D:94150478
#accession I57488
#status translated from GB/EMBL/DBJ
#molecule_type mRNA

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#residues 1-99 ##label LTY
#cross-references GB:S69738; NID:9545464; PID:9545465
REFERENCE
#authors Ye, Q.N.; Su, G.F.; Yuan, Y.; Huang, C.F.
#journal Chinese J. Microbiol. Immunol. (1994) 14:29-32
#title The PCR, cloning and sequencing of human monocyte chemoattractant protein-1 (MCP-1) gene.
#accession J01096
#molecule_type mRNA
#residues 24-28, 'Q',30-99 ##label YEQ
GENETICS
#gene GDB:SCY2
#cross-references GDB:125279; OMIM:158105
#map_position 17q11.2-17q12
CLASSIFICATION
#superfamily macrophage inflammatory protein
#cytokine; glycoprotein; inflammation; pyroglyutamic acid
FEATURE
1-23
24-99
#domain signal sequence #status predicted #label SIG\
#product monocyte chemoattractant protein 1 #status
29-99
#product monocyte chemoattractant protein 1, short form
#status experimental #label MAT\
24
#modified site pyrrolidone carboxylic acid (Gln) (in mature form) #status experimental\
37
#binding-site carbohydrate (Asn) (covalent) #status predicted
SUMMARY
#length 99 #molecular-weight 11025 #checksum 7984
Query Match
Best Local Similarity 91.7%; Score 89; DB 2; Length 99;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
Db 73 EICADPKQRWQ 84
QY 1 EICADPSKRWQ 12
RESULT 4
ENTRY JC2136
TITLE monocyte chemoattractant protein-1 precursor - pig
ORGANISM Sus scrofa domestica #common.name domestic pig
DATE 30-Sep-1993 #sequence_revision 20-Aug-1994 #text_change 08-Sep-1997
ACCESSIONS JC2136; S57498
REFERENCE
#authors Hosang, K.; Knoke, I.; Klaudiny, J.; Wempe, F.; Wuttke, W.; Scheit, K.H.
#journal Biochem. Biophys. Res. Commun. (1994) 199:962-968
#title Porcine luteal cells express monocyte chemoattractant protein-1 (MCP-1): Analysis by polymerase chain reaction and cDNA cloning.
#accession JC2136
#molecule_type mRNA
#residues 1-99 ##label HOS
REFERENCE
#authors Zach, O.
#title submitted to the EMBL Data Library, July 1994
#accession S57498
#status preliminary
#molecule_type mRNA
#residues 1-99 ##label ZAC
#cross-references EMBL:X79416; NID:9872312; PID:9872313
CLASSIFICATION
#superfamily macrophage inflammatory protein
KEYWORDS glycoprotein
FEATURE
1-23
24-99
#domain signal sequence #status predicted #label SIG\
#product monocyte chemoattractant protein-1 #status
94
#binding-site carbohydrate (Asn) (covalent) #status predicted
SUMMARY
#length 99 #molecular-weight 10976 #checksum 9768
Query Match
Score 88; DB 2; Length 99;

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Best Local Similarity 83.3%; Pred. No. 1.32e-06;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 73 EICADPQKQWQ 84
|:|||||
OY 1 EICADPSQKQWQ 12

RESULT 5
ENTRY JC2417 #type complete
TITLE monocytic chemoattractant protein-2 - pig
ORGANISM #formal_name Sus scrofa domestica #common_name domestic pig
DATE 24-Feb-1995 #sequence_revision 24-Feb-1995 #text_change 03-May-1996

ACCESSIONS JC2417
REFERENCE JC2417
#authors Hosang, K.; Knoke, I.; Klaudiny, J.; Wempe, F.; Muttke, W.; Scheit, K.H.
#journal Biochem. Biophys. Res. Commun. (1994) 205:148-153
#title Porcine luteal cells express monocytic chemoattractant protein-2 (MCP-2): Analysis by cDNA cloning and northern analysis.

#accession JC2417
#molecule_type mRNA
#residues 1-99 #label HOS
#experimental_source corpus luteum
CLASSIFICATION #superfamily macrophage inflammatory protein
FEATURE 1-23
#domain signal sequence #status predicted #label SIG
24-99 #product monocytic chemoattractant protein-2 #status predicted #label MAT

SUMMARY #length 99 #molecular-weight 10903 #checksum 7556

Query Match 91.5%; Score 86; DB 2; Length 99;
Best Local Similarity 83.3%; Pred. No. 3.63e-06;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 73 EVCADPQKQWQ 84
|:|||||
OY 1 EICADPSQKQWQ 12

RESULT 6
ENTRY A39296 #type complete
TITLE monocytic chemoattractant protein 1 precursor - bovine
ALTERNATE_NAMES #formal_name Bos primigenius taurinus #common_name cattle
ORGANISM #formal_name Bos primigenius taurinus #common_name cattle
DATE 03-Aug-1992 #sequence_revision 03-Aug-1992 #text_change 31-Oct-1997

ACCESSIONS A39296
REFERENCE A39296
#authors Wempe, F.; Henschen, A.; Scheit, K.H.
#journal DNA Cell Biol. (1991) 10:671-679
#title Gene expression and cDNA cloning identified a major basic protein constituent of bovine seminal plasma as bovine monocytic-chemoattractant protein-1 (MCP-1).

#cross-references M01D:92096117
#accession A39296
#molecule_type mRNA
#residues 1-99 #label WEM
#cross-references GB:M84602; GB:M85264; NID:G163394; PID:G163395
#accession B39296
#molecule_type protein
#residues 50-68, 'X', '70-74', 'X', '76 #label WE2
#experimental_source seminal vesicle
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS glycoprotein
FEATURE 1-23
#domain signal sequence #status predicted #label SIG
24-99 #product monocytic chemoattractant protein 1 #status predicted #label MAT
#binding_site carbohydrate (Asn) (covalent) #status predicted

SUMMARY #length 99 #molecular-weight 11114 #checksum 9401

Query Match 89.4%; Score 84; DB 2; Length 99;
Best Local Similarity 83.3%; Pred. No. 9.85e-06;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 73 ELCADPQKQWQ 84
|:|||||
OY 1 EICADPSQKQWQ 12

RESULT 7
ENTRY JC2336 #type complete
TITLE monocytic chemoattractant protein-1 - bovine
ORGANISM #formal_name Bos primigenius indicus #common_name zebu cattle
DATE 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change 03-May-1996

ACCESSIONS JC2336
REFERENCE JC2336
#authors Wempe, F.; Kuhlmann, J.K.; Scheit, K.H.
#journal Biochem. Biophys. Res. Commun. (1994) 202:1272-1279
#title Characterization of the bovine monocytic chemoattractant protein-1 gene.

#accession JC2336
#molecule_type protein
#residues 1-99 #label WEM

GENETICS MCP-1
#gene 26/1; 65/2
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 99 #molecular-weight 11114 #checksum 9401

Query Match 89.4%; Score 84; DB 2; Length 99;
Best Local Similarity 83.3%; Pred. No. 9.85e-06;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 73 ELCADPQKQWQ 84
|:|||||
OY 1 EICADPSQKQWQ 12

RESULT 8
ENTRY I46857 #type complete
TITLE monocytic chemoattractant protein-1 - rabbit
ORGANISM #formal_name Oryctolagus cuniculus #common_name domestic rabbit
DATE 14-Feb-1997 #sequence_revision 14-Feb-1997 #text_change 08-May-1997

ACCESSIONS I46857
REFERENCE I46857
#authors Yoshimura, T.; Yuhki, N.
#journal J. Immunol. (1991) 146:3483-3488
#title Neutrophil attractant/activation protein-1 and monocytic chemoattractant protein-1 in rabbit: cDNA cloning and their expression in spleen cells.

#cross-references M01D:9125489
#accession I46857
#molecule_type mRNA
#status preliminary; translated from GB/EMBL/DBJ
#residues 1-125 #label YOS
#cross-references GB:M57440; NID:G165469; PID:G165470
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 125 #molecular-weight 13776 #checksum 4498

Query Match 88.3%; Score 83; DB 2; Length 125;
Best Local Similarity 90.9%; Pred. No. 1.62e-05;
Matches 10; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 74 ICADPQKQWQ 84
|:|||||
OY 2 ICADPSQKQWQ 12


```
RESULT 9
ENTRY JC4912 #type complete
TITLE eotaxin - human
ORGANISM #formal_name Homo sapiens #common_name man
DATE 01-Nov-1996 #sequence_revision 01-Nov-1996 #text_change
08-Sep-1997
ACCESSIONS JC4912
REFERENCE JC4912
#authors Bartels, J.; Schlutener, C.; Richter, E.; Noso, N.; Kulke, R.;
Christophers, E.; Schroeder, J.M.
#journal Biochem. Biophys. Res. Commun. (1996) 225:1045-1051
#title Human dermal fibroblasts express eotaxin: Molecular cloning,
mRNA expression, and identification of eotaxin sequence
variants.
#accession JC4912
#status preliminary
#molecule_type mRNA
#residues 1-97 #label BAR
#cross-references EMBL:275668; NID:q1531982; PID:e251275; PID:q1531983
#experimental_source dermal fibroblast
COMMENT This protein has eosinophil specific chemotactic activity.
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS fibroblast
FEATURE 1-18
1-18 #domain signal sequence #status predicted #label SIG\
SUMMARY 19-97 #product eotaxin #status predicted #label MAT
#length 97 #molecular_weight 10790 #checksum 448
Query Match 83.0%; Score 78; DB 2; Length 97;
Best Local Similarity 66.7%; Pred. No. 1.87e-04;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;
Db 71 DICADPKRWQ 82
Oy 1 EICADPSQKWQ 12

RESULT 10
ENTRY C60407 #type fragment
TITLE monocyte adherence-induced protein 5 beta - human (fragment)
ORGANISM #formal_name Homo sapiens #common_name man
DATE 06-Nov-1992 #sequence_revision 06-Nov-1992 #text_change
03-May-1996
ACCESSIONS C60407
REFERENCE A60407
#authors Sporn, S.A.; Eierman, D.F.; Johnson, C.E.; Morris, J.;
Martin, G.; Ladner, M.; Haskill, S.
#journal J. Immunol. (1990) 144:4434-4441
#title Monocyte adherence results in selective induction of novel
genes sharing homology with mediators of inflammation and
tissue repair.
#cross-references MUID:90257367
#accession C60407
#status preliminary; not compared with conceptual translation
#molecule_type mRNA
#residues 1-50 #label SPO
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 50 #checksum 9927
Query Match 81.9%; Score 77; DB 2; Length 50;
Best Local Similarity 66.7%; Pred. No. 3.04e-04;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;
Db 30 QVCADPSQWQ 41
Oy 1 EICADPSQKWQ 12

RESULT 11
ENTRY A31767 #type complete
TITLE macrophage inflammatory protein 1-beta precursor - human
ALTERNATE_NAMES cytokine HC1: G-26 protein; H400 homolog; lymphocyte
activation gene 1 protein (LAG-1); MIP-1beta; PAT744; SC1A2
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protein (misidentification); SIS gamma homolog; T-cell
activation protein 2 (Act-2); T-cell activation protein
gamma
ORGANISM #formal_name Homo sapiens #common_name man
DATE 07-Jun-1990 #sequence_revision 29-May-1998 #text_change
29-May-1998
ACCESSIONS JH0319; A40978; A31767; A37411; B30574; B45817; D30552
REFERENCE JH0319
#authors Balxeras, E.; Roman-Roman, S.; Jitsukawa, S.; Genevree, C.;
Melchior, S.; Viegas-Pequignot, E.; Hercend, T.; Triebel,
F.
#journal Mol. Immunol. (1990) 27:1091-1102
#title Cloning and expression of a lymphocyte activation gene
(LAG-1).
#cross-references MUID:91061800
#accession JH0319
#status translation not shown
#molecule_type DNA
#residues 1-92 #label BAT
#cross-references GB:X53682; NID:q34217; PID:q34218
#experimental_source natural killer cell, strain CD3-CD2+, FS, S11B5
REFERENCE A40978
#authors Napolitano, M.; Modi, W.S.; Cevario, S.J.; Gnarr, J.R.;
Senzar, H.N.; Leonard, W.J.
#journal J. Biol. Chem. (1991) 266:17531-17536
#title The gene encoding the Act-2 cytokine. Genomic structure,
HIV-1/tax responsiveness of 5' upstream sequences, and
chromosomal localization.
#cross-references MUID:91373378
#accession A40978
#molecule_type DNA
#residues 1-14, 'S', '16-69, 'G', '71-92 #label NAP
#cross-references GB:M69201; NID:q178021
#note 15-Ala was also found
REFERENCE A31767
#authors Lipos, M.A.; Napolitano, M.; Jeang, K.T.; Chang, N.T.;
Leonard, W.J.
#journal Proc. Natl. Acad. Sci. U.S.A. (1988) 85:9704-9708
#title Identification, cloning, and characterization of an immune
activation gene.
#cross-references MUID:89071764
#accession A31767
#molecule_type mRNA
#residues 1-92 #label LIP
#cross-references GB:J04130; NID:q178017; PID:q178018
REFERENCE A37411
#authors Chang, H.C.; Reinherz, E.L.
#journal Eur. J. Immunol. (1989) 19:1045-1051
#title Isolation and characterization of a cDNA encoding a putative
cytokine which is induced by stimulation via the CD2
structure on human T lymphocytes.
#cross-references MUID:89325421
#accession A37411
#molecule_type mRNA
#residues 1-92 #label CHA
#cross-references GB:X16166; NID:q32035; PID:q32036
REFERENCE A30574
#authors Zipfel, P.F.; Balke, J.; Irving, S.G.; Kelly, K.; Siebenlist,
U.
#journal J. Immunol. (1989) 142:1582-1590
#title Mitogenic activation of human T cells induces two closely
related genes which share structural similarities with a
new family of secreted factors.
#cross-references MUID:89140347
#accession B30574
#molecule_type mRNA
#residues 1-19, 'U', '21-92 #label ZIP
#cross-references GB:M25316; NID:q602454; PID:q602455
REFERENCE A45817
#authors Miller, M.D.; Hata, S.; Malefyt, R.D.W.; Krangel, M.S.
#journal J. Immunol. (1989) 143:2907-2916
#title A novel polypeptide secreted by activated human T
lymphocytes.
```

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#cross-references MUID:90038522
#accession B45617
##molecule_type mRNA
##residues 7-55,'I','S','T','I',81-92 ##label MIL
##cross-references GB:M57503; NID:9339726; PID:9339727
REFERENCE
#journal J. Immunol. (1989) 142:679-687
#authors Brown, K.D.; Zurawski, S.M.; Mosmann, T.R.; Zurawski, G.
#title A family of small inducible proteins secreted by leukocytes
are members of a new superfamily that includes leukocyte
and fibroblast-derived inflammatory agents, growth factors,
and indicators of various activation processes.
#cross-references MUID:89093958
#accession D30552
##molecule_type mRNA
##residues 1-39,'REASS','46-92 ##label BRO
##cross-references GB:M23502; NID:9533212; PID:9533213
REFERENCE
#journal A52206
#authors Cloutier, G.M.; Lodi, P.J.; Garrett, D.S.; Gronenborn, A.M.
#submission submitted to the Brookhaven Protein Data Bank, January 1994
#cross-references PDB:1HUM
#contents annotation, conformation and disulfide bond assignments by
(1)H-NMR, residues 24-92
COMMENT This protein is secreted by activated lymphocytes and monocytes. It
is bound by chemokine (C-C) receptor 5 (see PIR:A43113) and
receptor 1 (see PIR:A45177).
GENETICS
#gene GDB:1L61
##cross-references GDB:127451; OMIM:153335
#map_position 17q21-17q21
#introns 26/1: 64/2
CLASSIFICATION
#superfamily macrophage inflammatory protein
#chemotaxis; cytokine; inflammation
FEATURE
1-23
24-92
#domain signal sequence #status predicted #label SIG\
#product macrophage inflammatory protein 1-beta #status
experimental #label MAT\
#disulfide_bonds #status experimental
SUMMARY 34-58,35-74 #length 92 #molecular_weight 10212 #checksum 7597
Query Match 81.9%; Score 77; DB 1; Length 92;
Best Local Similarity 66.7%; Pred. No. 3.04e-04;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 72 QVCADPSESWQ 83
OY 1 EICADPSOKWVO 12

RESULT 12
ENTRY A30574
#type complete
TITLE macrophage inflammatory protein 1-alpha precursor - human
ALTERNATE_NAMES LD78-alpha protein precursor; lymphocyte tumor
promoter-induced protein; macrophage inflammatory protein
homolog GOS19-1; MIP-1alpha; p4746; small inducible
cytokine A3; T-cell activation protein 1
ORGANISM #formal_name Homo sapiens #common_name man
DATE 03-Aug-1992 #sequence_revision 03-Aug-1992 #text_change
29-May-1998
ACCESSIONS A35673; A30574; A30412; A24198; A30908
REFERENCE A35673
#authors Nakao, M.; Nomiyama, H.; Shimada, K.
#journal Mol. Cell. Biol. (1990) 10:3646-3658
#title Structures of human genes coding for cytokine LD78 and their
expression.
#cross-references MUID:90287155
#accession A35673
##molecule_type DNA
##residues 1-92 ##label NAK
##cross-references GB:D90144; NID:9219905; PID:01014875; PID:9219906
REFERENCE A30574
#authors Zupfel, P.F.; Balke, J.; Irving, S.G.; Kelly, K.; Stebenlist,
U.

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#journal J. Immunol. (1989) 142:1582-1590
#title Mitogenic activation of human T cells induces two closely
related genes which share structural similarities with a
new family of secreted factors.
#cross-references MUID:89140347
#accession A30574
##molecule_type mRNA
##residues 1-92 ##label ZIP
##cross-references GB:M25315; NID:9602452; PID:9602453
REFERENCE
#journal A30412
#authors Blum, S.; Forsdyke, R.E.; Forsdyke, D.R.
#journal DNA Cell Biol. (1990) 9:589-602
#title Three human homologs of a murine gene encoding an inhibitor
of stem cell proliferation.
#cross-references MUID:91103879
#accession A30412
##molecule_type mRNA
##residues 1-92 ##label BLU
REFERENCE
#journal A24198
#authors Obaru, K.; Fukuda, M.; Maeda, S.; Shimada, K.
#journal J. Biochem. (1986) 99:885-894
#title A cDNA clone used to study mRNA inducible in human tonsillar
lymphocytes by a tumor promoter.
#cross-references MUID:86223879
#accession A24198
#status preliminary
GENETICS
#gene GDB:SCYA3
##cross-references GDB:120368; OMIM:182283
#map_position 17q11-17q21
CLASSIFICATION
#superfamily macrophage inflammatory protein
FEATURE
1-20
21-92
#domain signal sequence #status predicted #label SIG\
#product macrophage inflammatory protein 1-alpha #status
predicted #label MAT\
#disulfide_bonds #status predicted
SUMMARY 33-57,34-73 #length 92 #molecular_weight 10085 #checksum 4316
Query Match 81.9%; Score 77; DB 2; Length 92;
Best Local Similarity 66.7%; Pred. No. 3.04e-04;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 71 QVCADPSESWQ 82
OY 1 EICADPSOKWVO 12

RESULT 13
ENTRY B35673
#type complete
TITLE LD78-beta protein precursor - human
ALTERNATE_NAMES macrophage inflammatory protein homolog GOS19-2; small
inducible cytokine A4
ORGANISM #formal_name Homo sapiens #common_name man
DATE 28-Sep-1990 #sequence_revision 28-Sep-1990 #text_change
24-Sep-1998
ACCESSIONS B35673; B30412; S10157; B30908
REFERENCE B35673
#authors Nakao, M.; Nomiyama, H.; Shimada, K.
#journal Mol. Cell. Biol. (1990) 10:3646-3658
#title Structures of human genes coding for cytokine LD78 and their
expression.
#cross-references MUID:90287155
#accession B35673
#status preliminary
##molecule_type DNA
##residues 1-93 ##label NAK
##cross-references GB:D90145; NID:9219907; PID:01014876; PID:9219908
REFERENCE A30412
#authors Blum, S.; Forsdyke, R.E.; Forsdyke, D.R.
#journal DNA Cell Biol. (1990) 9:589-602
#title Three human homologs of a murine gene encoding an inhibitor

```

of stem cell proliferation.

```
#cross-references MWID:91103879
#accession B30412
#status preliminary; not compared with conceptual translation
#molecule-type DNA
#residues 1-93 ##label BLU
#cross-references GB:M24110; GB:M32338; NID:q182848; PID:q182849
REFERENCE S10157
#authors Irving, S.G.; Zipfel, P.F.; Balke, J.; McBride, O.W.; Morton, C.C.; Burd, P.R.; Siebenlist, U.; Kelly, K.
#journal Nucleic Acids Res. (1990) 18:3261-3270
#title Two inflammatory mediator cytokine genes are closely linked and variably amplified on chromosome 17q.
#cross-references MWID:90287702
#accession S10157
#status preliminary
#molecule-type mRNA
#residues 1-93 ##label IRV
#cross-references EMBL:X52149; NID:q34750; PID:q296666
COMMENT This protein is a member of a "small inducible" or "activation specific" gene family, is likely to be an early-acting interleukin, and is the product of a putative 60/61 switch gene.
GENERIC
#gene GDB:SCYA4
#cross-references GDB:120369; OMTM:182284
#map_position 17q11-17q21
#introns 26/1; 64/2
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS cytokine
FEATURE
1-22 #domain signal sequence #status predicted #label SIG\
23-93 #product LD78-beta protein #status predicted #label MAT
SUMMARY
Query Match 81.9%; Score 77; DB 2; Length 93;
Best Local Similarity 66.7%; Pred. No. 3.04e-04;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;
Db 72 OVCADPSEWQ 83
QY 1 EICADPSQKWQ 12

RESULT 14
ENTRY JN0841 #type complete
TITLE Interleukin-8 - dog
ORGANISM #formal_name Canis lupus familiaris #common_name dog
DATE 19-May-1994 #sequence_revision 19-May-1994 #text_change 12-Apr-1995
ACCESSION JN0841
REFERENCE Iihikawa, J.; Suzuki, S.; Hotta, K.; Hirota, Y.; Mizuno, S.; Suzuki, K.
#journal Gene (1993) 131:305-306
#title Cloning of a canine gene homologous to the human interleukin-8-encoding gene.
#accession JN0841
#molecule-type DNA
#residues 1-95 ##label ISH
COMMENT This protein is a polymorphonuclear leukocytes chemotactic factor and is involved in the host defense function.
GENERIC
#introns 22/1; 67/2
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 95 #molecular-weight 10611 #checksum 3157

Query Match 80.9%; Score 76; DB 2; Length 95;
Best Local Similarity 66.7%; Pred. No. 4.91e-04;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;
Db 75 EVCLDPKRWQ 86
QY 1 EICADPSQKWQ 12
```

```
RESULT 15
ENTRY JC2478 #type complete
TITLE eotaxin - rat
ORGANISM #formal_name Rattus norvegicus #common_name Norway rat
DATE 21-Feb-1995 #sequence_revision 05-Apr-1995 #text_change 08-Sep-1997
ACCESSION JC2478
REFERENCE JC2478
#authors Jose, P.J.; Adcock, I.M.; Griffiths-Johnson, D.A.; Berkman, N.; Wells, T.N.C.; Williams, T.J.; Power, C.A.
#journal Biochem. Biophys. Res. Commun. (1994) 205:788-794
#title Eotaxin: Cloning of an eosinophil chemottractant cytokine and increased mRNA expression in allergen-challenged guinea-pig lungs.
#accession JC2478
#molecule-type mRNA
#residues 1-96 ##label JOS
#cross-references EMBL:X77603; NID:q602551; PID:q602552
COMMENT This protein is identified as a potent eosinophil chemoattractant.
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS glycoprotein
FEATURE
1-23 #domain signal sequence #status predicted #label SIG\
24-96 #product eotaxin #status predicted #label MAT\
#binding_site carbohydrate (Thr) (covalent) #status predicted
SUMMARY
Query Match 80.9%; Score 76; DB 2; Length 96;
Best Local Similarity 81.8%; Pred. No. 4.91e-04;
Matches 9; Conservative 0; Mismatches 2; Indels 0; Gaps 0;
Db 71 ICADPKKKWQ 81
QY 2 ICADPSQKWQ 12

RESULT 16
ENTRY I48099 #type complete
TITLE eotaxin precursor - guinea pig
ORGANISM #formal_name Cavia porcellus #common_name guinea pig
DATE 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 09-May-1997
ACCESSION I48099
REFERENCE Rothenberg, M.E.; Luster, A.D.; Lilly, C.M.; Drazen, J.M.; Leder, P.
#journal J. Exp. Med. (1995) 181:1211-1216
#title Constitutive and allergen-induced expression of eotaxin mRNA in the guinea pig lung.
#cross-references MWID:95173589
#accession I48099
#status preliminary; translated from GB/EMBL/DBJ
#molecule-type mRNA
#residues 1-96 ##label RES
#cross-references EMBL:U18941; NID:q687655; PID:q687656
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 96 #molecular-weight 10753 #checksum 7236

Query Match 80.9%; Score 76; DB 2; Length 96;
Best Local Similarity 81.8%; Pred. No. 4.91e-04;
Matches 9; Conservative 0; Mismatches 2; Indels 0; Gaps 0;
Db 71 ICADPKKKWQ 81
QY 2 ICADPSQKWQ 12

RESULT 17
ENTRY S42496 #type complete
TITLE Interleukin 8 - sheep
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ORGANISM #formal_name Ovis orientalis aries, Ovis ammon aries
#common_name domestic sheep
DATE 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change
08-Sep-1997
ACCESSIONS S42496
#residues 1-103 #label L1N
#cross-references GB:M65923; NID:9164520; PID:9164521
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 103 #molecular-weight 11033 #checksum 8835

Query Match 80.9%; Score 76; DB 2; Length 103;
Best Local Similarity 66.7%; Pred. No. 4.91e-04;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 75 EYCLDPKREKWKQ 86
1 EICADPSQKWKQ 12

RESULT 18
ENTRY 146997 #type complete
TITLE interleukin-8 - sheep
ORGANISM #formal_name Ovis sp. #common_name sheep
DATE 21-Feb-1997 #sequence_revision 21-Feb-1997 #text_change
09-May-1997
ACCESSIONS I46997
#residues 1-101 #label SEO
#authors Seow, H.F.; Yoshimura, T.; Wood, P.R.; Colditz, I.G.
#journal Immunol. Cell Biol. (1994) 72:398-405.
#title Cloning, sequencing, expression and inflammatory activity in
skin of ovine interleukin-8.
#cross-references MUID:95137691
#accession I46997
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-101 #label SEO
#cross-references GB:S74436; NID:9786590; PID:9786591
GENETICS OIL-8
#gene #superfamily beta-thromboglobulin
CLASSIFICATION #length 101 #molecular-weight 11292 #checksum 294
SUMMARY

Query Match 80.9%; Score 76; DB 2; Length 101;
Best Local Similarity 66.7%; Pred. No. 4.91e-04;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 75 EYCLDPKREKWKQ 86
1 EICADPSQKWKQ 12

RESULT 19
ENTRY A53096 #type complete
TITLE interleukin-8 precursor - pig
ORGANISM #formal_name Sus scrofa domestica #common_name domestic pig
DATE 02-Jun-1995 #sequence_revision 02-Jun-1995 #text_change
08-Sep-1997
ACCESSIONS A53096
#residues 1-148 #label TIM
#authors Timmer, H.T.M.; Pronk, G.J.; Bos, J.L.; van der Eb, A.J.
#journal Nucleic Acids Res. (1990) 18:23-34
#title Analysis of the rat JE gene promoter identifies an AP-1
binding site essential for basal expression but not for TPA
induction.
#cross-references MUID:90174947
#accession S07723
#molecule_type DNA
#residues 1-148 #label TIM
#cross-references EMBL:X17053; NID:955530; PID:955531
REFERENCE JN0128
#authors Yoshimura, T.; Takeya, M.; Takahashi, K.

#accession A53096
#status preliminary
#molecule_type mRNA
#residues 1-103 #label L1N
#cross-references GB:M65923; NID:9164520; PID:9164521
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 103 #molecular-weight 11033 #checksum 8835

Query Match 80.9%; Score 76; DB 2; Length 103;
Best Local Similarity 66.7%; Pred. No. 4.91e-04;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 75 EYCLDPKREKWKQ 86
1 EICADPSQKWKQ 12

RESULT 20
ENTRY A44253 #type complete
TITLE alveolar macrophage chemotactic factor-I (AMCF-I)
ORGANISM #formal_name Sus scrofa domestica #common_name domestic pig
DATE 30-Apr-1993 #sequence_revision 18-Nov-1994 #text_change
23-Feb-1996
ACCESSIONS A44253
#residues 1-103 #label GOO
#authors Kullper, J.L.; Forstrom, J.W.; Martin, T.R.
#journal Biochemistry (1992) 31:10483-10490
#title Molecular cloning of porcine alveolar macrophage-derived
neutrophil chemotactic factors I and II: identification of
porcine IL-8 and another interleukin-alpha protein.
#cross-references MUID:93041741
#accession A44253
#status preliminary
#molecule_type mRNA; protein
#residues 1-103 #label GOO
#experimental_source alveolar macrophage
#note Sequence extracted from NCBI backbone (NCBIN:117415,
NCBIP:117416)
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 103 #molecular-weight 11677 #checksum 8904

Query Match 80.9%; Score 76; DB 2; Length 103;
Best Local Similarity 66.7%; Pred. No. 4.91e-04;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 75 EYCLDPKREKWKQ 86
1 EICADPSQKWKQ 12

RESULT 21
ENTRY S07723 #type complete
TITLE immediate-early serum-responsive protein JE - rat
ALTERNATE_NAMES monocytic chemoattractant protein-1
ORGANISM #formal_name Rattus norvegicus #common_name Norway rat
DATE 29-Jan-1993 #sequence_revision 29-Jan-1993 #text_change
08-Sep-1997
ACCESSIONS S07723; JN0128
#residues 1-148 #label TIM
#authors Timmer, H.T.M.; Pronk, G.J.; Bos, J.L.; van der Eb, A.J.
#journal Nucleic Acids Res. (1990) 18:23-34
#title Analysis of the rat JE gene promoter identifies an AP-1
binding site essential for basal expression but not for TPA
induction.
#cross-references MUID:90174947
#accession S07723
#molecule_type DNA
#residues 1-148 #label TIM
#cross-references EMBL:X17053; NID:955530; PID:955531
REFERENCE JN0128
#authors Yoshimura, T.; Takeya, M.; Takahashi, K.

#journal Biochem. Biophys. Res. Commun. (1991) 174:504-509
#title Molecular cloning of rat monocyte chemoattractant protein-1 (MCP-1) and its expression in rat spleen cells and tumor cell lines.
#cross-references MUID:91128376
#accession JN0128
##molecule_type mRNA
##residues 1-148 ##label YOS
##cross-references GB:M57441; NID:g205333; PID:g205334
##experimental_source spleen cells
#note the authors translated the codon GAA for residue 62 as Lys and GCT for residue 63 as Leu

GENETICS
#introns 26/1: 65/2
CLASSIFICATION #superfamily macrophage inflammatory protein

FEATURE
1-23 #domain signal sequence #status predicted #label SIG\
24-148 #product immediate-early serum-responsive protein JE
#status predicted #label MAT
SUMMARY #length 148 #molecular-weight 16460 #checksum 4876

Query Match 80.9%; Score 76; DB 2; Length 148;
Best Local Similarity 75.0%; Pred. No. 4,91e-04;
Matches 9; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 73 EICADPKKRWQ 84
111111: 111
Oy 1 EICADPSQKWQ 12

RESULT 22
ENTRY 152322 #type complete
TITLE macrophage inflammatory protein-1alpha - rat
ORGANISM #formal_name Rattus norvegicus #common_name Norway rat
DATE 29-May-1998 #sequence_revision 29-May-1998 #text_change 02-Jul-1998

ACCESSIONS 152322
REFERENCE 152322
#authors Shi, M.M.; Godleski, J.J.; Paulauskis, J.D.
#journal Biochem. Biophys. Res. Commun. (1995) 211:289-295
#title Molecular cloning and posttranscriptional regulation of macrophage inflammatory protein-1 alpha in alveolar macrophages
#cross-references MUID:92598037
#accession 152322
##status preliminary; translated from GB/EMBL/DBJ
##molecule_type mRNA
##residues 1-92 ##label RES
##cross-references EMBL:U22414; NID:g790633; PID:g790633
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 92 #molecular-weight 10335 #checksum 3184

Query Match 79.8%; Score 75; DB 2; Length 92;
Best Local Similarity 66.7%; Pred. No. 7,91e-04;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 71 OICADPKKRWQ 82
111111: 111
Oy 1 EICADPSQKWQ 12

RESULT 23
ENTRY A46539 #type complete
TITLE monocyte chemoattractant cytokine RANTES precursor - mouse
ALTERNATE_NAMES Murantes
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE 18-Jun-1993 #sequence_revision 16-Aug-1996 #text_change 11-Sep-1998
ACCESSIONS 148875; A46539; 148654; 156970
REFERENCE 148875
#authors Danoff, T.M.; Lalley, P.A.; Chang, Y.S.; Heeger, P.S.; Neilson, E.G.
#journal J. Immunol. (1994) 152:1182-1189

#title Cloning, genomic organization, and chromosomal localization of the Scya5 gene encoding the murine chemokine RANTES.
#cross-references MUID:94132613
#accession 148875
##status preliminary; translated from GB/EMBL/DBJ
##molecule_type DNA
##residues 1-91 ##label DAN
##cross-references EMBL:U02298; NID:g460090; PID:g460091
REFERENCE A46539
#authors Schall, T.J.; Simpson, N.J.; Mak, J.Y.
#journal Eur. J. Immunol. (1992) 22:1477-1481
#title Molecular cloning and expression of the murine RANTES cytokine: structural and functional conservation between mouse and man.
#cross-references MUID:92289805
#accession A46539
##molecule_type mRNA
##residues 1-18, 'A', 20-91 ##label SCH
#experimental_source macrophage cell line P05-1.8
#note sequence extracted from NCBI backbone (NCBI:106768, NCBI:P:106770)

REFERENCE 148654
#authors Shin, H.S.; Drysdale, B.E.; Shin, M.L.; Noble, P.W.; Fisher, S.N.; Paznekas, W.A.
#journal Mol. Cell. Biol. (1994) 14:2914-2925
#title Definition of a lipopolysaccharide-responsive element in the 5'-flanking regions of Murantes and crg-2.
#cross-references MUID:94217689
#accession 148654
##status translation not shown; translated from GB/EMBL/DBJ
##molecule_type DNA
##residues 1-91 ##label SHI
##cross-references EMBL:X70675; NID:g475205; PID:g475206
REFERENCE 156970
#authors Neilson, E.G.; Krensky, A.
#journal Kidney Int. (1992) 41:220-225
#title Isolation and characterization of cDNA from renal tubular epithelium encoding murine Rantes: A small interferon from the Scy superfamily.
#cross-references MUID:92277990
#accession 156970
##status translated from GB/EMBL/DBJ
##molecule_type mRNA
##residues 1-40, 'E', 42-91 ##label NEI
##cross-references GB:M7747; NID:g200649; PID:g200650
COMMENT This chemoattractant for monocytes but not neutrophils is an immediate-early response protein to LPS stimulation.

GENETICS
#introns 26/1: 63/2
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS chemotaxis; cytokine; immediate-early protein; inflammation
FEATURE 1-23
24-91 #domain signal sequence #status predicted #label SIG\
SUMMARY #product monocyte chemoattractant cytokine RANTES
#status predicted #label MAT
#length 91 #molecular-weight 10071 #checksum 3010

Query Match 78.7%; Score 74; DB 1; Length 91;
Best Local Similarity 58.3%; Pred. No. 1,27e-03;
Matches 7; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Db 71 OVCANPKKRWQ 82
111111: 111
Oy 1 EICADPSQKWQ 12

RESULT 24
ENTRY 146730 #type complete
TITLE immune activation gene 2 - rabbit
ORGANISM #formal_name Oryctolagus cuniculus #common_name domestic rabbit
DATE 14-Feb-1997 #sequence_revision 14-Feb-1997 #text_change 09-May-1997

ACCESSIONS 146730
REFERENCE 146730
#authors Mori, S.; Goto, K.; Goto, F.; Mutakami, K.; Ohkawara, S.;
#journal Yoshinaga, M.
#title Int. Immunol. (1994) 6:149-156
#cross-references MUD:94198229
#accession 146730
#status preliminary; translated from GB/EMBL/DBJ
#molecule-type mRNA
#residues 1-92 #label MOR
#cross-references GB:D17402; NID:9599577; PID:9599578
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 92 #molecular-weight 10066 #checksum 5637

Query Match 78.7%; Score 74; DB 2; Length 92;
Best Local Similarity 58.3%; Pred. No. 1.27e-03;
Matches 7; Conservative 4; Mismatches 1; Indels 0; Gaps 0;

Db 72 QVCANPSESQWQ 83
Qy 1 EICADPSQKWQ 12

RESULT 25
ENTRY JC5295 #type complete
TITLE monocyte chemotactic protein-2 - human
ORGANISM #formal_name Homo sapiens #common_name man
DATE 02-May-1997 #sequence_revision 18-Jul-1997 #text_change
31-Oct-1997
ACCESSIONS JC5295
REFERENCE JC5295
#authors Van Collille, E.; Froyen, G.; Nomiya, H.; Miura, R.; Fiten,
P.; Van Aelst, I.; Van Damme, J.; Odenakker, G.
#journal Biochem. Biophys. Res. Commun. (1997) 231:726-730
#title Human monocyte chemotactic protein-2: cDNA cloning and
regulated expression of mRNA in mesenchymal cells.
#accession JC5295
#molecule-type mRNA
#residues 1-99 #label VAN
#cross-references GB:Y10802; NID:91924937; PID:9294088; PID:91924938
#experimental_source bone marrow
COMMENT This protein belongs to the beta-chemokine family which is one of
the major HIV-suppressive factors. It plays roles in autoimmune
processes such as multiple sclerosis and rheumatoid arthritis and
in tumor biology, and contribute to the trafficking and
recruitment of the responsive cells.

GENETICS
#gene mcp-2
CLASSIFICATION #superfamily macrophage inflammatory protein
FEATURE 1-23
24-99

SUMMARY #length 99 #molecular-weight 11246 #checksum 6596

Query Match 78.7%; Score 74; DB 2; Length 99;
Best Local Similarity 58.3%; Pred. No. 1.27e-03;
Matches 7; Conservative 4; Mismatches 1; Indels 0; Gaps 0;

Db 73 EVCADPKRQWQ 84
Qy 1 EICADPSQKWQ 12

RESULT 26
ENTRY 146871 #type complete
TITLE interleukin-8 - rabbit
ALTERNATE_NAMES #formal_name Oryctolagus cuniculus #common_name domestic
ORGANISM rabbit
DATE 14-Feb-1997 #sequence_revision 14-Feb-1997 #text_change

ACCESSIONS 09-Aug-1997
REFERENCE 146871; S13052
#authors Yoshimura, T.; Yokoi, N.
#journal J. Immunol. (1991) 146:3483-3488
#title Neutrophil attractant/activation protein-1 and monocyte
chemotactic protein-1 in rabbit: cDNA cloning and their
expression in spleen cells.
#cross-references MUD:91225489
#accession 146871
#status preliminary; translated from GB/EMBL/DBJ
#molecule-type mRNA
#residues 1-101 #label YOS
#cross-references GB:M57439; NID:9165552; PID:9165553
REFERENCE S13052
#authors Beaudien, B.C.; Collins, P.D.; Jose, P.J.; Toty, N.F.;
Hsuan, J.; Waterfield, M.D.; Williams, T.J.
#journal Biochem. J. (1990) 271:797-801
#title A novel neutrophil chemotactic protein generated during an
inflammatory reaction in the rabbit peritoneal cavity in
vivo. Purification, partial amino acid sequence and
structural relationship to interleukin 8.
#cross-references MUD:91058518
#accession S13052
#molecule-type protein
#residues 23-33; 'X', 35, 'X', 37-46, 'X', 48-49, 'I', 51-53 #label BEA
CLASSIFICATION #superfamily beta-thromboglobulin
KEYWORDS cytokine
SUMMARY #length 101 #molecular-weight 11402 #checksum 1085

Query Match 77.7%; Score 73; DB 2; Length 101;
Best Local Similarity 66.7%; Pred. No. 2.04e-03;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 75 ELCDPKRQWQ 86
Qy 1 EICADPSQKWQ 12

RESULT 27
ENTRY A30209 #type complete
TITLE PDGF-inducible JE glycoprotein precursor - mouse
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE 01-Dec-1989 #sequence_revision 01-Dec-1989 #text_change
01-May-1998
ACCESSIONS A30209; A44771; A30861
REFERENCE A30209
#authors Rollins, B.J.; Morrison, E.D.; Stiles, C.D.
#journal Proc. Natl. Acad. Sci. U.S.A. (1988) 85:3738-3742
#title Cloning and expression of JE, a gene inducible by
platelet-derived growth factor and whose product has
cytokine-like properties.
#cross-references MUD:88234501
#accession A30209
#molecule-type DNA
#residues 1-148 #label ROL
#cross-references GB:M19681; NID:9193486; PID:9387168; GB:M19682
REFERENCE A44771
#authors Kawahara, R.S.; Deuel, T.F.
#journal J. Biol. Chem. (1989) 264:679-682
#title Platelet-derived growth factor-inducible gene JE is a member
of a family of small inducible genes related to platelet
factor 4.
#accession A44771
#molecule-type DNA; mRNA
#residues 1-148 #label RA2
#cross-references GB:J04467; NID:9193488; PID:9387169
GENETICS
#gene JE
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS cytokine; glycoprotein
FEATURE

```

126          #binding_site carbohydrate (Asn) (covalent) #status
SUMMARY      #length 148 #molecular-weight 16326 #checksum 5278
Query Match  76.6%; Score 72; DB 2; Length 148;
Best Local Similarity 66.7%; Pred. No. 3.26e-03;
Matches      8; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

Db          73 EVCADPKKRWQ 84
            1-111111111
            1 EICADPSOKRWQ 12

OY          1 EICADPSOKRWQ 12

RESULT      28
ENTRY      JE0177
TITLE      #type complete
           lymphocyte and monocyte chemoattractant CC chemokine - human
ORGANISM   #formal_name Homo sapiens #common_name man
DATE       10-Jul-1998 #sequence_revision 10-Jul-1998 #text_change
           10-Jul-1998

ACCESSIONS
REFERENCE  JE0177
           JE0177
AUTHORS    Youn, B.S.; Zhang, S.; Broxmeyer, H.E.; Antol, K.; Fraser
           Jr., M.J.; Hangoc, G.; Kwon, B.S.
           Biochem. Biophys. Res. Commun. (1998) 247:217-222
           Isolation and characterization of IMC, a novel lymphocyte and
           monocyte chemoattractant human CC chemokine, with
           myelosuppressive activity.

#accession
#molecule_type mRNA
#residues  1-120 #label YOU
#length 120 #molecular-weight 13600 #checksum 230

SUMMARY
Query Match  74.5%; Score 70; DB 2; Length 120;
Best Local Similarity 50.0%; Pred. No. 8.28e-03;
Matches      6; Conservative 5; Mismatches 1; Indels 0; Gaps 0;

Db          74 EVCINPNDWQ 85
            1-111111111
            1 EICADPSOKRWQ 12

OY          1 EICADPSOKRWQ 12

RESULT      29
ENTRY      A28815
TITLE      #type complete
           monocytic chemoattractant cytokine RANTES precursor - human
ALTERNATE_NAMES small inducible cytokine A5; T-cell specific cytokine RANTES
ORGANISM   #formal_name Homo sapiens #common_name man
DATE       30-Jun-1989 #sequence_revision 16-Aug-1996 #text_change
           29-May-1998

ACCESSIONS
REFERENCE  A28815
           A28815
AUTHORS    Schall, T.J.; Jongstra, J.; Dyer, B.D.; Jorgensen, J.;
           Clayberger, C.; Davis, M.M.; Krensky, A.M.
           J. Immunol. (1988) 141:1018-1025
           A human T cell-specific molecule is a member of a new gene
           family.

#cross-references MUID:88285659
#accession  A28815
#molecule_type mRNA
#residues  1-91 #label SCH
#cross-references GB:M21121
           The acronym RANTES reflects the description "Regulated upon
           Activation, Normal T Expressed, Secreted".

GENETICS
#gene      GDB:SCYA5; D17S136E
#cross-references GDB:120749; OMIM:187011

CLASSIFICATION
#map_position 17q11.2-17q12
#superfamily macrophage inflammatory protein
KEYWORDS    chemotaxis; cytokine; immediate-early protein; inflammation;
           T-cell

FEATURE
1-23      #domain signal sequence #status predicted #label SIG
24-91     #product T-cell protein RANTES #status predicted #label
           MAT

126          #length 91 #molecular-weight 9990 #checksum 1727
SUMMARY      #length 91 #molecular-weight 9990 #checksum 1727
Query Match  72.3%; Score 68; DB 1; Length 91;
Best Local Similarity 50.0%; Pred. No. 2.08e-02;
Matches      6; Conservative 4; Mismatches 2; Indels 0; Gaps 0;

Db          71 QVCANPEKKWVR 82
            1-111111111
            1 EICADPSOKRWQ 12

OY          1 EICADPSOKRWQ 12

RESULT      30
ENTRY      A32393
TITLE      #type complete
           macrophage inflammatory protein-1-alpha precursor - mouse
ALTERNATE_NAMES heparin-binding chemotaxis protein; L6G25 protein;
           SCI/MIP-1a; SIS alpha; stem cell inhibitor/macrophage
           inflammatory protein 1-alpha; T-cell activation protein
           alpha; TYS
ORGANISM   #formal_name Mus musculus #common_name house mouse
DATE       17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change
           08-Sep-1997
           S11685; A32393; S04533; A53885; A30552; P50303; A27596;
           156104

ACCESSIONS
REFERENCE  S11685
           S11685
AUTHORS    Grove, M.; Lowe, S.; Graham, G.; Pragnell, I.; Plumb, M.
           Nucleic Acids Res. (1990) 18:5561
           Sequence of the murine haemopoietic stem cell
           inhibitor/macrophage inflammatory protein 1-alpha gene.
           #cross-references MUID:91016858
#accession S11685
#molecule_type DNA
#residues  1-92 #label GRO
#cross-references EMBL:X53372; NID:954062; PID:9297531
           the authors' translation of the nucleotide sequence
           differs at several positions from the sequence given

REFERENCE  A32393
           A32393
AUTHORS    Kwon, B.S.; Weisman, S.M.
           Proc. Natl. Acad. Sci. U.S.A. (1989) 86:1963-1967
           cDNA sequence of two inducible T-cell genes.
           #cross-references MUID:89184547
#accession A32393
#molecule_type mRNA
#residues  1-92 #label KWO
#cross-references GB:J04491; NID:9201524; PID:9201525
           S04533
REFERENCE  S04533
           S04533
AUTHORS    Davatelis, G.; Tekamp-Olson, P.; Wolpe, S.D.; Hermesen, K.;
           Luedke, C.; Gallegos, C.; Coit, D.; Merryweather, J.;
           Cerami, A.
           J. Exp. Med. (1988) 167:1939-1944
           Cloning and characterization of a cDNA for murine macrophage
           inflammatory protein (MIP), a novel monokine with
           inflammatory and chemokinetic properties.
           #cross-references MUID:88258380
#accession S04533
#molecule_type mRNA
#residues  1-48,'E',50-90,'T',92 #label DA2
#cross-references EMBL:X12531
           the authors translated the codon GAG for residue 49 as
           Asp and ATT for residue 91 as Asn
           the sequence has been corrected in reference A53885

REFERENCE  A53885
           A53885
AUTHORS    Davatelis, G.; Tekamp-Olson, P.; Wolpe, S.D.; Hermesen, K.;
           Luedke, C.; Gallegos, C.; Coit, D.; Merryweather, J.;
           Cerami, A.
           J. Exp. Med. (1989) 170:2189

#journal    J. Exp. Med.
#contents  erratum
#accession  A53885
#molecule_type mRNA
#residues  1-92 #label DAY
#cross-references EMBL:X12531; NID:953122; PID:953123

REFERENCE  A30552
           A30552
AUTHORS    Brown, K.D.; Zurawski, S.M.; Mosmann, T.R.; Zurawski, G.
           J. Immunol. (1989) 142:679-687
           #journal

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#title      A family of small inducible proteins secreted by leukocytes
             are members of a new superfamily that includes leukocyte
             and fibroblast-derived inflammatory agents, growth factors,
             and indicators of various activation processes.
#cross-references MUID:89093958
#accession     A30552
#molecule_type mRNA
##residues     1-21,'L',23-61,'A',63-92 ##label BR0
##cross-references GB:M23447; NID:9533240; PID:9533241
REFERENCE
#authors      Sherry, B.; Tekamp-Olson, P.; Gallegos, C.; Bauer, D.;
             Davatelis, G.; Wolpe, S.D.; Mastarz, F.; Colt, D.; Cerami,
             A.
#journal      J. Exp. Med. (1988) 168:2251-2259
#title        Resolution of the two components of macrophage inflammatory
             protein 1, and cloning and characterization of one of those
             components, macrophage inflammatory protein 1 beta.
#cross-references MUID:89067830
#accession     PS0303
#molecule_type mRNA
##residues     24-33,'XX',36-54 ##label SHE
REFERENCE
#authors      Wolpe, S.D.; Davatelis, G.; Sherry, B.; Beutler, B.; Hesse,
             D.G.; Nguyen, H.T.; Moldawer, L.L.; Nathan, C.F.; Lowry,
             S.F.; Cerami, A.
#journal      J. Exp. Med. (1988) 167:570-581
#title        Macrophages secrete a novel heparin-binding protein with
             inflammatory and neutrophil chemokinetic properties.
#cross-references MUID:88154745
#accession     A27596
#molecule_type protein
##residues     24-33,'XX',36-42 ##label WOL
##note          26-Met, 30-Pro, and 39-Thr were also found
REFERENCE
#authors      Widmer, U.; Yang, Z.; van Deventer, S.; Manogue, K.R.;
             Sherry, B.; Cerami, A.
#journal      J. Immunol. (1991) 146:4031-4040
#title        Genomic structure of murine macrophage inflammatory
             protein-1 alpha and conservation of potential regulatory
             sequences with a human homolog, LD78.
#cross-references MUID:91237116
#accession     I56104
#status         preliminary; translated from GB/EMBL/DBJ
#molecule_type DNA
##residues     1-92 ##label RRS
##cross-references GB:M73061; NID:9199694; PID:9199695
COMMENT        This protein is a monokine.
GENETICS
#introns       23/3; 26/1; 63/2
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS       heparin binding
FEATURE
1-23           #domain signal sequence #status predicted #label SIG\
24-92          #product macrophage inflammatory protein #status
                experimental #label MAT
SUMMARY
#length 92 #molecular-weight 10345 #checksum 5009
Query Match 72.3%; Score 68; DB 2; Length 92;
Best Local Similarity 58.3%; Pred. No. 2.08e-02;
Matches 7; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

```

Db 71 QICADSKETWQ 82
 QY 1 EICADPSOKWQ 12
 Search completed: Thu Apr 1 07:38:03 1999
 Job time : 18 secs.

M I N I S T E R I U M
(TM)

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MPerch_pp protein - protein database search, using Smith-Waterman algorithm
Run on: Thu Apr 1 07:36:21 1999; MasPar time 2.30 Seconds
139.878 Million cell updates/sec
Tabular output not generated.

Title: >US-08-927-939-11
Description: (1-12) from US08927939.pep
Perfect Score: 94
Sequence: 1 EICADPSOKWVQ 12

Scoring table:
PAM 150
Gap 15

Searched: 74019 segs, 26840295 residues

Post-processing: Minimum Match 0%
Listing first 100 summaries

Database: swiss-prot36
1:swissprot

Statistics: Mean 25.218; Variance 32.555; scale 0.775

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description	Pred. No.
1	92	97.9	99	1	MCP3_HUMAN MONOCYTE CHEMOTACTIC P	7.99e-09
2	90	95.7	120	1	MCP1_CAVPO MONOCYTE CHEMOTACTIC P	2.52e-08
3	89	94.7	99	1	MCP1_HUMAN MONOCYTE CHEMOTACTIC P	4.46e-08
4	89	94.7	101	1	MCP1_CANFA MONOCYTE CHEMOTACTIC P	4.46e-08
5	88	93.6	99	1	MCP1_PIG MONOCYTE CHEMOTACTIC P	7.89e-08
6	86	91.5	99	1	MCP2_PIG MONOCYTE CHEMOTACTIC P	2.44e-07
7	86	91.5	99	1	MCP2_BOVIN MONOCYTE CHEMOTACTIC P	2.44e-07
8	85	90.4	98	1	MCP4_HUMAN MONOCYTE CHEMOTACTIC P	4.29e-07
9	84	89.4	99	1	MCPA_BOVIN MONOCYTE CHEMOTACTIC P	7.51e-07
10	83	88.3	125	1	MCP1_RABIT MONOCYTE CHEMOTACTIC P	1.31e-06
11	82	87.2	97	1	EOTA_MOUSE EOTAXIN PRECURSOR (EOS	2.28e-06
12	82	87.2	97	1	EOTA_RAT EOTAXIN PRECURSOR (EOS	2.28e-06
13	81	86.2	89	1	MIP4_HUMAN MACROPHAGE INFLAMMATOR	3.96e-06
14	81	86.2	97	1	EOTA_HUMAN MACROPHAGE INFLAMMATOR	3.96e-06
15	78	83.0	104	1	MCP5_MOUSE MONOCYTE CHEMOTACTIC P	2.04e-05
16	77	81.9	92	1	MIL4_HUMAN MACROPHAGE INFLAMMATOR	3.51e-05
17	77	81.9	92	1	MILB_HUMAN MACROPHAGE INFLAMMATOR	3.51e-05
18	77	81.9	93	1	MILC_HUMAN MACROPHAGE INFLAMMATOR	3.51e-05
19	76	80.9	96	1	EOTA_CAVPO EOTAXIN PRECURSOR (EOS	6.01e-05
20	76	80.9	101	1	IL8_SHEEP INTERLEUKIN-8 PRECURSOR	6.01e-05
21	76	80.9	101	1	IL8_CANFA INTERLEUKIN-8 PRECURSOR	6.01e-05
22	76	80.9	103	1	IL8_PIG INTERLEUKIN-8 PRECURSOR	6.01e-05
23	76	80.9	148	1	MCP1_RAT MONOCYTE CHEMOTACTIC P	6.01e-05

24	75	79.8	92	1	MIL4_RAT MACROPHAGE INFLAMMATOR	1.03e-04
25	75	79.8	93	1	CCCL_HUMAN CHEMOKINE CC-1 PRECURS	1.03e-04
26	75	79.8	109	1	CCCB_HUMAN CHEMOKINE CC-3 PRECURS	1.03e-04
27	74	78.7	74	1	MCP3_BOVIN MONOCYTE CHEMOTACTIC P	1.75e-04
28	74	78.7	91	1	SISD_MOUSE T-CELL SPECIFIC RANTES	1.75e-04
29	74	78.7	92	1	MILB_RABIT MACROPHAGE INFLAMMATOR	1.75e-04
30	74	78.7	92	1	SISD_RAT T-CELL SPECIFIC RANTES	1.75e-04
31	74	78.7	97	1	MCP3_MOUSE MONOCYTE CHEMOTACTIC P	1.75e-04
32	74	78.7	99	1	MCP2_HUMAN MONOCYTE CHEMOTACTIC P	1.75e-04
33	73	77.7	101	1	IL8_BOVIN INTERLEUKIN-8 PRECURSO	2.96e-04
34	73	77.7	101	1	IL8_RABIT INTERLEUKIN-8 PRECURSO	2.96e-04
35	72	76.6	148	1	MCP1_MOUSE MONOCYTE CHEMOTACTIC P	5.01e-04
36	70	74.5	92	1	MILB_RAT MACROPHAGE INFLAMMATOR	1.42e-03
37	69	73.4	90	1	MILB_CHICK MACROPHAGE INFLAMMATOR	2.37e-03
38	68	72.3	50	1	SISD_PIG T-CELL SPECIFIC RANTES	3.95e-03
39	68	72.3	91	1	SISD_HUMAN T-CELL SPECIFIC RANTES	3.95e-03
40	68	72.3	91	1	SISD_CAVPO T-CELL SPECIFIC RANTES	3.95e-03
41	68	72.3	92	1	MIL4_MOUSE MACROPHAGE INFLAMMATOR	3.95e-03
42	68	72.3	114	1	LTN_MOUSE LYMPHOTACTIN PRECURSOR	3.95e-03
43	67	71.3	89	1	SDP1_MOUSE STROMAL CELL-DERIVED F	6.57e-03
44	67	71.3	92	1	MILB_MOUSE MACROPHAGE INFLAMMATOR	6.57e-03
45	67	71.3	93	1	SDP1_HUMAN STROMAL CELL-DERIVED F	6.57e-03
46	67	71.3	99	1	IL8_HUMAN INTERLEUKIN-8 PRECURSO	6.57e-03
47	67	71.3	101	1	IL8_CAVPO INTERLEUKIN-8 PRECURSO	6.57e-03
48	67	71.3	101	1	IL8_RAT LYMPHOTACTIN PRECURSOR	6.57e-03
49	65	69.1	103	1	EMF1_CHICK EMBRYO FIBROBLAST PROT	1.79e-02
50	64	68.1	96	1	MIL3_HUMAN MACROPHAGE INFLAMMATOR	2.94e-02
51	64	68.1	116	1	C10_MOUSE C10 PROTEIN PRECURSOR	2.94e-02
52	63	67.0	101	1	IL8_MACMU INTERLEUKIN-8 PRECURSO	4.81e-02
53	63	67.0	101	1	IL8_CERTO INTERLEUKIN-8 PRECURSO	4.81e-02
54	61	64.9	122	1	MILC_MOUSE MACROPHAGE INFLAMMATOR	1.27e-01
55	60	63.8	98	1	MILB_HUMAN MACROPHAGE INFLAMMATOR	2.05e-01
56	60	63.8	731	1	BGAL_MALDO BETA-GALACTOSIDASE PRE	2.05e-01
57	59	62.8	114	1	LTN_HUMAN LYMPHOTACTIN PRECURSOR	3.28e-01
58	59	62.8	694	1	PINK1_NPVAC PUTATIVE POLYNUCLEOTID	3.28e-01
59	55	58.5	85	1	KOC2_ECOLI TRANSCRIPTIONAL REPRES	2.07e+00
60	55	58.5	117	1	Y09K_YEAST HYPOTHETICAL 13.2 KD P	2.07e+00
61	54	57.4	379	1	YFG8_PSEAE HYPOTHETICAL 41.7 KD P	3.24e+00
62	54	57.4	532	1	INV4_YEAST INVERTASE 4 PRECURSOR	3.24e+00
63	54	57.4	532	1	INV2_YEAST INVERTASE 2 PRECURSOR	3.24e+00
64	54	57.4	828	1	BGAL_BRNOL BETA-GALACTOSIDASE PRE	3.24e+00
65	54	56.4	92	1	SISF_MOUSE SMALL INDUCIBLE CYTOKI	5.04e+00
66	53	56.4	94	1	TARC_HUMAN TYROSIN AND ACTIVATION	5.04e+00
67	53	56.4	831	1	NAPA_RHOSH PRIPPLASTIC NITRATE RE	5.04e+00
68	53	56.4	832	1	BGAL_ASPOF BETA-GALACTOSIDASE PRE	5.04e+00
69	53	56.4	871	1	PC1_MOUSE PLASMA-CELL MEMBRANE G	5.04e+00
70	52	55.3	281	1	CD37_MOUSE LEUKOCYTE ANTIGEN CD37	7.79e+00
71	52	55.3	339	1	HEN2_MYCIE DELTA-AMINOLEVULINIC A	7.79e+00
72	52	55.3	460	1	E2B2_HUMAN TRANSLATION INITIATION	7.79e+00
73	52	55.3	721	1	E2B2_RABIT TRANSLATION INITIATION	7.79e+00
74	52	55.3	730	1	DCOR_LACS3 ONITHINE DECARBOXYLASE	7.79e+00
75	52	55.3	716	1	E2B2_RAT TRANSLATION INITIATION	1.83e+01
76	52	55.3	219	1	POLG_HRY14 GENOME POLYPROTEIN (CO	7.79e+00
77	51	54.3	473	1	TBX6_BRARE TEX6 PROTEIN (T-BOX PR	1.20e+01
78	51	54.3	584	1	CIR1_YEAST SPINDLE POLE BODY ASSO	1.20e+01
79	50	53.2	386	1	MOG_MOUSE MYELOID UPREGULATED PR	1.83e+01
80	50	53.2	396	1	YB0F_SCHPO HYPOHETICAL 44.3 KD P	1.83e+01
81	50	53.2	716	1	E2B2_RAT TRANSLATION INITIATION	1.83e+01
82	50	53.2	716	1	BGAL_DIACA PUTATIVE BETA-GALACTOS	1.83e+01
83	50	53.2	835	1	BGAL_LYCES BETA-GALACTOSIDASE PRE	1.83e+01
84	50	53.2	841	1	CSM_DROME PROTEIN-TYROSINE PHOSP	1.83e+01
85	50	53.2	886	1	MVP_HUMAN MAJOR VAULT PROTEIN (M	1.83e+01
86	50	53.2	1021	1	Y2R2_DROME HYPOHETICAL 115 KD PR	1.83e+01
87	50	53.2	1239	1	V120_EBV CAPSID ASSEMBLY PROTEI	1.83e+01
88	50	53.2	1433	1	VGLM_BUNYW M POLYPROTEIN PRECURSO	1.83e+01
89	49	52.1	111	1	V101_HUMAN HYPOHETICAL PROTEIN K	2.77e+01
90	49	52.1	151	1	ASPI_HELAN ANOTHER-SPECIFIC PROTEI	2.77e+01
91	49	52.1	421	1	ENV_HVINS ENVELOPE POLYPROTEIN G	2.77e+01
92	49	52.1	579	1	YR47_CABEL HYPOHETICAL 66.0 KD P	2.77e+01
93	49	52.1	815	1	PHSG_ECOLI GLYCOCEN PHOSPHORYLASE	2.77e+01
94	49	52.1	843	1	ENV_HV1Y2 ENVELOPE POLYPROTEIN G	2.77e+01
95	49	52.1	856	1	ENV_HV1K3 ENVELOPE POLYPROTEIN G	2.77e+01
96	49	52.1	861	1	ENV_HV1K6 ENVELOPE POLYPROTEIN G	2.77e+01

97 49 52.1 867 1 ENV_HVLJ3 ENVELOPE POLYPROTEIN G 2.77e+01
 98 49 52.1 873 1 PCL_HUMAN PLASMA-CELL MEMBRANE G 2.77e+01
 99 49 52.1 1238 1 PTP_MOUSE PROTEIN-TYROSINE PHOSP 2.77e+01
 100 49 52.1 1827 1 SUTS_HUMAN SUCRASE-ISOMALTAASE, IN 2.77e+01

ALIGNMENTS

RESULT 1
 ID MCP3_HUMAN STANDARD; PRT; 99 AA.
 AC P80098;
 DT 01-DEC-1992 (REL. 24, CREATED)
 DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 3 PRECURSOR (MCP-3) (MONOCYTE
 DE CHEMOTACTIC PROTEIN 3) (NC28).
 UN SCV47 OR MCP3.
 US HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A., AND SEQUENCE OF 31-67 AND 71-99.
 RX MEDLINE; 93213290.
 RA OPDENAKKER G., FROYEN G., FITTEN P., PROOST P., VAN DAMME J.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 191:535-542(1993).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 94375065.
 RA OPDENAKKER G., FITTEN P., NYS G., FROYEN G., VAN ROY N., SPELMAN F.,
 RA LAUREYS G., VAN DAMME J.;
 RL GENOMICS 21:403-408(1994).
 RN [3]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 93305913.
 RA MINY A., CHALON P., GUILLEMOT J.C., KAGHAD M., LIADZON P.,
 RA MAGAZIN M., MILOUX B., MINY C., RAMOND P., VITA N., LUPKER J.,
 RA SHIRE D., FERRARA P., CAPUT D.;
 RL EUR. CYTOKINE NETW. 4:99-110(1993).
 RN [4]
 RP SEQUENCE OF 30-99.
 RX TISSUE-OSTEOSARCOMA;
 RA VAN DAMME J., PROOST P., LENAERTS J.-P., OPDENAKKER G.;
 RL J. EXP. MED. 176:59-65(1992).
 RN [5]
 RP STRUCTURE BY NMR, AND SUBUNIT.
 RX MEDLINE; 97053697.
 RA KIM K.-S., RAJARATHNAM K., CLARK-LEWIS I., SYKES B.D.;
 RL FEBS LETT. 395:277-282(1996).
 RN [6]
 RP STRUCTURE BY NMR.
 RX MEDLINE; 97263733.
 RA MEUNIER S., BERNASASAU J.-M., GUILLEMOT J.-C., FERRARA P., DARBON H.;
 RA BIOCHEMISTRY 36:4412-4422(1997).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND
 CC EOSINOPHILS, BUT NOT NEUTROPHILS. AUGMENTS MONOCYTE ANTI-TUMOR
 CC ACTIVITY. ALSO INDUCES THE RELEASE OF GELATINASE B. THIS PROTEIN
 CC CAN BIND HEPARIN.
 CC -1- SUBUNIT: MONOMER.
 CC -1- PTM: O-GLYCOSYLATED.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL; X72308; G313708; ALT_INIT.
 DR EMBL; X72309; -, NOT_ANNOTATED_CDS.
 DR EMBL; X71087; G288398; ALT_INIT.
 DR EMBL; X71087; G288398; ALT_INIT.
 DR EMBL; X71087; G288397; ALT_INIT.
 DR PIR; JCI478; JCI478.
 DR PIR; S32223; S32222.
 DR PIR; A54678; A54678.
 DR PDB; INCV; 15-OCT-97.
 DR MIM; 158106; -.
 DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.

KM CYTOKINE: CHEMOTAXIS; HEPARIN-BINDING; GLYCOPROTEIN; SIGNAL;
 KM INFLAMMATORY RESPONSE; 3D-STRUCTURE.
 FT SIGNAL 1 23
 FT CHAIN 24 29
 FT MOD_RES 24 24 MONOCYTE CHEMOTACTIC PROTEIN 3.
 FT DISULFID 34 59 PYRROLIDONE CARBOXYLIC ACID.
 FT DISULFID 35 75 BY SIMILARITY.
 FT CARBOHYD 29 29 BY SIMILARITY.
 FT CONFLICT 30 30 POTENTIAL.
 FT CONFLICT 30 30 T->K (IN REF. 4).
 FT CONFLICT 68 70 MISSING (IN REF. 4).
 SQ SEQUENCE 99 AA; 11200 MW; 7502E19C CRC32;

Query Match 97.9%; Score 92; DB 1; Length 99;
 Best Local Similarity 91.7%; Pred. No. 7.99e-09;
 Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 73 EICADPTOKWQ 84
 1 EICADPTOKWQ 12

RESULT 2
 ID MCP1_CAVPO STANDARD; PRT; 120 AA.
 AC 008782;
 DT 01-NOV-1995 (REL. 32, CREATED)
 DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE
 DE CHEMOTACTIC PROTEIN 1)
 UN SCV42 OR MCP1.
 OS CAVIA PORCELLUS (GUINEA PIG).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX STRAIN-2; TISSUE-SPLEEN;
 RA MEDLINE; 93267104.
 RA YOSHIMURA T.;
 RL J. IMMUNOL. 150:5025-5032(1993).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
 CC NEUTROPHILS.
 CC -1- SUBUNIT: MONOMER OR HOMODIMER, IN EQUILIBRIUM (BY SIMILARITY).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL; I04985; G349821;
 DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
 KM CYTOKINE: CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
 FT SIGNAL 1 23
 FT CHAIN 24 120
 FT MOD_RES 24 24 MONOCYTE CHEMOTACTIC PROTEIN 1.
 FT DISULFID 33 57 PYRROLIDONE CARBOXYLIC ACID (BY
 FT DISULFID 34 73 BY SIMILARITY.
 FT CARBOHYD 97 97 BY SIMILARITY.
 SQ SEQUENCE 120 AA; 13741 MW; 22PAD257 CRC32;
 Query Match 95.7%; Score 90; DB 1; Length 120;
 Best Local Similarity 83.3%; Pred. No. 2.52e-08;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 71 EICADPTOKWQ 82
 1 EICADPTOKWQ 12

RESULT 3
 ID MCP1_HUMAN STANDARD; PRT; 99 AA.
 AC P13500;
 DT 01-JAN-1990 (REL. 13, CREATED)
 DT 01-JAN-1990 (REL. 13, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE CHEMOTACTIC
 DE AND ACTIVATING FACTOR) (MCAF) (MONOCYTE SECRETORY PROTEIN J2)

DE (MONOCYTE CHEMOTACTIC PROTEIN 1) (HC11) (SMALL INDUCIBLE CYTOKINE
A2).
GN SC1A2 OR MCP1.
OS HOMO SAPIENS (HUMAN).
OC EUAROTIA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUHERIA; PRIMATES.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE; 8915862.
RA FUJUTANI Y., NOMURA H., NOTAKE M., OYAMADA Y., FUKUI T., YAMADA M.,
LAUSEN C.G., OPENHEIM J.J., MATSUSHIMA K.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 159:249-255(1989).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE; 90097880.
RA ROLLINS B.J., STIER P., ERNST T., WONG G.G.;
RL MOL. CELL. BIOL. 9:4687-4695(1989).
RN [3]
RP SEQUENCE FROM N.A.
RX MEDLINE; 89153605.
RA YOSHIMURA T., YOHKI N., MOORE S.K., APPELLA E., LERMAN M.I.,
LEONARD E.J.;
RL FEBS LETT. 244:487-493(1989).
RN [4]
RP SEQUENCE FROM N.A.
RX MEDLINE; 90290466.
RA SHY Y.J., LI Y.S., KOLATYUKDY P.E.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 169:346-351(1990).
RN [5]
RP SEQUENCE FROM N.A.
RX MEDLINE; 91207938.
RA CHANG H.C., HSU F., FREEMAN G.J., GRIFFIN J.D., REINHERZ E.L.;
RL INT. IMMUNOL. 1:388-399(1989).
RN [6]
RP SEQUENCE FROM N.A.
RX MEDLINE; 94150478.
RA LI Y.S., SHY Y.J., WRIGHT J.G., VALENTE A.J., CORNHILL J.F.,
KOLATYUKDY P.E.;
RL MOL. CELL. BIOPHYS. 126:61-68(1993).
RN [7]
RP SEQUENCE FROM N.A.
RX MEDLINE; 92095166.
RA YOSHIMURA T., LEONARD E.J.;
RL ADV. EXP. MED. BIOL. 305:47-56(1991).
RN [8]
RP SEQUENCE OF 24-99.
RX MEDLINE; 89184525.
RA ROBINSON E.A., YOSHIMURA T., LEONARD E.J., TANAKA S., GRIFFIN P.R.,
SHABANOWITZ J., HUNT D.F., APPELLA E.;
RL PROC. NATL. ACADE. SCI. U.S.A. 86:1850-1854(1989).
RN [9]
RP SEQUENCE OF 29-53 AND 82-92.
RX MEDLINE; 90211336.
RA DECOCK B., CONINGS R., LENAERTS J.-P., BILTAU A., VAN DANNE J.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 167:904-909(1990).
RN [10]
RP 3D-STRUCTURE MODELING.
RX MEDLINE; 91312872.
RA GRONENBORN A.M., CLORE G.M.;
RL PROTEIN ENG. 4:263-269(1991).
RN [11]
RP X-RAY CRYSTALLOGRAPHY (1.85 ANGSTROMS).
RX MEDLINE; 97143315.
RA LOBKOWSKI J., BUJACZ G., DOMATILE P.J., HANDEL T.M., WLODAWER A.;
RL NAT. STRUCT. BIOL. 4:64-69(1997).
RN [12]
RP STRUCTURE BY NMR.
RX MEDLINE; 96234959.
RA HANDEL T.M., DOMATILE P.J.;
RL BIOCHEMISTRY 35:6569-6584(1996).
RN [13]
RP EFFECT OF DELETION OF N-TERMINAL RESIDUES.
RX MEDLINE; 96195223.

RA WEBER M., UGUCCIONI M., BAGGIOLINI M., CLARK-LEWIS I., DAHINDEN C.A.;
RL J. EXP. MED. 183:681-685(1996).
RN [14]
RP MUTAGENESIS.
RX MEDLINE; 94253189.
RA ZHANG Y.J., RUTLEDGE B.J., ROLLINS B.J.;
RL J. BIOL. CHEM. 269:15918-15924(1994).
RN [15]
RP SUBUNIT.
RX MEDLINE; 97053697.
RA KIM K.-S., RAJARAMAN K., CLARK-LEWIS I., SYKES B.D.;
RL FEBS LETT. 395:277-282(1996).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND BASOPHILS
BUT NOT NEUTROPHILS OR EOSINOPHILS. AGENTS MONOCYTE ANTI-TUMOR
ACTIVITY. HAS BEEN IMPLICATED IN THE PATHOGENESIS OF DISEASES
CHARACTERIZED BY MONOCYTIC INFILTRATES, LIKE PSORIASIS, RHEUMATOID
ARTHRITIS OR ATHEROSCLEROSIS. MAY BE INVOLVED IN THE RECRUITMENT
OF MONOCYTES INTO THE ARTERIAL WALL DURING THE DISEASE PROCESS OF
ATHEROSCLEROSIS.
CC -1- SUBUNIT: MONOMER OR HOMODIMER. IN EQUILIBRIUM.
CC -1- PTM: PROCESSING AT THE N-TERMINUS CAN REGULATE RECEPTOR AND TARGET
CELL SELECTIVITY. DELETION OF THE AMINO-TERMINAL RESIDUE CONVERTS
IT FROM AN ACTIVATOR OF BASOPHIL TO AN EOSINOPHIL CHEMOTACTANT.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
CC EMBL; M31626; G386961; -.
CC EMBL; M30816; G386961; JOINED.
CC EMBL; M31625; G386961; JOINED.
CC EMBL; M24545; G307163; -.
CC EMBL; M28226; G338009; -.
CC EMBL; X14768; G34514; -.
CC EMBL; M37719; G487124; -.
CC EMBL; M28225; G338007; -.
CC EMBL; M28223; G338007; JOINED.
CC EMBL; M28224; G338007; JOINED.
CC EMBL; S69738; G54545; -.
CC EMBL; S71513; G240868; -.
CC EMBL; A17786; G641145; -.
CC PIR; A35474; A35474.
CC PIR; S03339; S03339.
CC PDB; 1DOK; 12-MAR-97.
CC PDB; 1DOK; 12-MAR-97.
CC PDB; 1DOK; 14-OCT-96.
CC PDB; 1DOK; 14-OCT-96.
CC PDB; 1MCA; 15-OCT-94.
CC MIM; 158105; -.
CC DR PROSITE: PS00472; SMALL CYTOKINES_CC: 1.
CC DR CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; 3D-STRUCTURE.
CC FT SIGNAL 1 23
CC FT CHAIN 24 99
CC FT MOD_RES 24 24
CC FT DISULFID 34 59
CC FT DISULFID 35 75
CC FT CARBOHYD 37 37
CC FT VARIANT 76 76
CC FT MUTAGEN 24 24
CC FT MUTAGEN 25 32
CC FT MUTAGEN 24 81
CC FT MUTAGEN 24 95
CC FT MUTAGEN 26 26
CC FT MUTAGEN 29 29
CC FT MUTAGEN 47 47
CC FT MUTAGEN 50 50
CC FT MUTAGEN 51 51
CC FT MUTAGEN 53 53
CC FT MUTAGEN 91 91
CC SO SEQUENCE 99 AA; 11025 MW; 5358695 CRC32;
Query Match 94.7%; Score 89; DB 1; Length 99;
Best Local Similarity 91.7%; Pred. No. 4,466-08;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
Db 73 EICADPKKQKWO 84

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OY      1 EICADPSQKWVQ 12
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RESULT  4
ID      MCP1_CANPA      STANDARD;      PRT;      101 AA.
AC      P52203;
DT      01-OCT-1996 (REL. 34, CREATED)
DT      01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT      15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE      MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE
DE      CHEMOTACTICANT PROTEIN-1).
GN      SCYA2 OR MCP1.
OS      CANIS FAMILIARIS (DOG).
OC      EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC      EUTHERIA; CARNIVORA.
RN      (1)
RP      SEQUENCE FROM N.A.
RC      TISSUE-JUGULAR VEIN ENDOTHELIAL;
RX      MEDLINE: 97176620
RA      KUMAR A.G., BALANTYNE C.M., MICHAEL L.H., KUKIELKA G.L., YOKER K.A.,
RA      LINDEY M.L., HAWKINS H.K., BIRDSALL H.H., MACKAY C.R., LAROSA G.J.,
RA      ROSSEN R.D., SMITH C.W., ENTMAN M.L.;
RL      CIRCULATION 95:693-700(1997).
CC      -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC      NEUTROPHILS. IMPORTANT FACTOR IN THE COURSE OF THE INFLAMMATORY
CC      REACTION TO REPERFUSION OF THE PREVIOUSLY ISCHEMIC MYOCARDIUM.
CC      MAY PLAY A SIGNIFICANT ROLE IN MONOCYTE TRAFFICKING INTO THE
CC      REPERFUSED MYOCARDIUM.
CC      -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
CC      -1- INDUCTION: BY TNF-ALPHA.
CC      -1- TISSUE SPECIFICITY: ENDOTHELIUM OF SMALL VEINS AND INTRAPASCICULAR
CC      VEINS, AND INFILTRATING LEUCOCYTES.
CC      -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC      G-C) (CHEMOKINE CC).
DR      EMBL: U29653; G1144186; -
DR      PROSITE: PS00472; SMALL CYTOKINES CC; 1.
KW      CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
FT      SIGNAL      1      23      BY SIMILARITY.
FT      CHAIN      24      101      MONOCYTE CHEMOTACTIC PROTEIN 1.
FT      MOD.RES      24      24      PYRROLIDONE CARBOXYLIC ACID (BY
FT      DISULFID      34      59      SIMILARITY).
FT      DISULFID      35      75      BY SIMILARITY.
SO      SEQUENCE      101 AA: 11121 MW: A7075B14 CRC32;

Query Match      94.7%; Score 89; DB 1; Length 101;
Best Local Similarity 91.7%; Pred. No. 4,46e-08;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db      73 EICADPSQKWVQ 84
      ||||| |||||
OY      1 EICADPSQKWVQ 12
      ||||| |||||
RESULT  5
ID      MCP1_PIG      STANDARD;      PRT;      99 AA.
AC      P42831;
DT      01-NOV-1995 (REL. 32, CREATED)
DT      01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
DT      15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE      MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1).
GN      SCYA2.
OS      SUS SCROFA (PIG).
OC      EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC      EUTHERIA; ARTIODACTYLA.
RN      (1)
RP      SEQUENCE FROM N.A.
RX      MEDLINE: 94183284.
RA      HOSANG K., KNOKE I., KLAUDINY J., WEMPE F., WUTTKE W., SCHEIT K.H.;
RL      BIOCHEM. BIOPHYS. RES. COMMUN. 199:962-968(1994).
RN      (2)
RP      SEQUENCE FROM N.A.

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RC      TISSUE-BRAIN;
RA      ZACH O.R.F.;
RL      SUBMITTED (JUL-1994) TO EMBL/GENBANK/DBJ DATA BANKS.
CC      -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC      NEUTROPHILS.
CC      -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
CC      -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC      G-C) (CHEMOKINE CC).
DR      EMBL: 248479; G683717; -
DR      EMBL: X79416; G872313; -
DR      PROSITE: PS00472; SMALL CYTOKINES CC; 1.
KW      CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
FT      SIGNAL      1      23      BY SIMILARITY.
FT      CHAIN      24      99      MONOCYTE CHEMOTACTIC PROTEIN 1.
FT      MOD.RES      24      24      PYRROLIDONE CARBOXYLIC ACID (BY
FT      DISULFID      34      59      SIMILARITY).
FT      DISULFID      35      75      BY SIMILARITY.
SO      SEQUENCE      99 AA: 10976 MW: ECC3AFB4 CRC32;

Query Match      93.6%; Score 88; DB 1; Length 99;
Best Local Similarity 83.3%; Pred. No. 7,89e-08;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db      73 EICADPSQKWVQ 84
      ||||| |||||
OY      1 EICADPSQKWVQ 12
      ||||| |||||
RESULT  6
ID      MCP2_PIG      STANDARD;      PRT;      99 AA.
AC      P49873;
DT      01-OCT-1996 (REL. 34, CREATED)
DT      01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT      15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE      MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
DE      CHEMOTACTICANT PROTEIN 2).
GN      SCYA8 OR MCP2.
OS      SUS SCROFA (PIG).
OC      EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC      EUTHERIA; ARTIODACTYLA.
RN      (1)
RP      SEQUENCE FROM N.A.
RX      MEDLINE: 95091716.
RA      HOSANG K.K., KNOKE I.I., KLAUDINY J.J., WEMPE F.F., WUTTKE W.W.,
RA      SCHEIT K.K.;
RL      BIOCHEM. BIOPHYS. RES. COMMUN. 205:148-153(1994).
CC      -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES. THIS PROTEIN
CC      CAN BIND HEPARIN.
CC      -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
CC      -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC      G-C) (CHEMOKINE CC).
DR      EMBL: 248480; G683719; -
DR      PROSITE: PS00472; SMALL CYTOKINES CC; 1.
KW      CYTOKINE; CHEMOTAXIS; SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE.
FT      SIGNAL      1      23      BY SIMILARITY.
FT      CHAIN      24      99      MONOCYTE CHEMOTACTIC PROTEIN 2.
FT      MOD.RES      24      24      PYRROLIDONE CARBOXYLIC ACID (BY
FT      DISULFID      34      59      SIMILARITY).
FT      DISULFID      35      75      BY SIMILARITY.
SO      SEQUENCE      99 AA: 10903 MW: B7620BCF CRC32;

Query Match      91.5%; Score 86; DB 1; Length 99;
Best Local Similarity 83.3%; Pred. No. 2,44e-07;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db      73 EICADPSQKWVQ 84
      ||||| |||||
OY      1 EICADPSQKWVQ 12
      ||||| |||||
RESULT  7

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ID MCP2_BOVIN STANDARD: PRT: 99 AA.
 AC Q09141;
 DT 01-NOV-1995 (REL. 32, CREATED)
 DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
 DE CHEMOTACTIC PROTEIN 2).
 GN SC1A8 OR MCP2.
 OS BOS TAURUS (BOVINE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; ARTIODACTYLA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 94114084.
 RA WEMPE F., HANES J., SCHEIT K.H.;
 RL DNA CELL BIOL. 13:1-8(1994).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES. THIS PROTEIN
 CC CAN BIND HEPARIN.
 CC -1- SUBUNIT: MONOMER OR HOMODIMER, IN EQUILIBRIUM (BY SIMILARITY).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL: S67954; E118856; -;
 DR EMBL: S67956; G544997; -;
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOKINE; SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE.
 FT SIGNAL 1 23 BY SIMILARITY.
 FT CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 2.
 FT MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID (BY
 FT SIMILARITY).
 FT DISULFID 34 59 BY SIMILARITY.
 FT DISULFID 35 75 BY SIMILARITY.
 FT SEQUENCE 99 AA: 10900 MW: 9842CD26 CRC32;
 Db 73 DVCADPKKQWQ 84
 Qy 1 EICADPSQKQWQ 12
 RESULT 8
 ID MCP4_HUMAN STANDARD: PRT: 98 AA.
 AC Q09616;
 DT 15-JUL-1998 (REL. 36, CREATED)
 DT 15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 4 PRECURSOR (MCP-4) (MONOCYTE
 DE CHEMOTACTIC PROTEIN 4) (CK-BETA10) (MCC-1).
 GN SCY13 OR MCP4 OR MCC1.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX TISSUE-HEART;
 RC MEDLINE: 97113354.
 RA GARCIA-ZEVEDA E.A., COMBADIERE C., ROTHENBERG M.E., SARATI M.N.,
 RA LAVIGNE F., HAMID O., MURPHY P.M., LUSTER A.D.;
 RL J. IMMUNOL. 157:5613-5626(1996).
 CC [2]
 RP SEQUENCE FROM N.A., AND SEQUENCE OF 17-98.
 RC TISSUE-FETAL;
 RX MEDLINE: 96235049.
 RA UGCCIONI M., LOETSCHER P., FORSSMANN U., DEMALD B., LI H., LIMA S.H.,
 RA LI Y., KREIDER B., GAROTTA G., THELEN M., BAGGIOLINI M.;
 RL J. EXP. MED. 183:2379-2384(1996).
 RN [3]
 RP SEQUENCE FROM N.A., AND SEQUENCE OF 22-33.
 RC TISSUE-FETAL;
 RX MEDLINE: 97341179.
 RA BEKHOUT T.A., SARAU H.M., MOORES K., WHITE J.R., ELSHOUBAGY N.,

RA APPELBAUM E., RAPE T.J., BRANNER M., MAKANA J., FOLEY J.J.,
 RA SCHMIDT D.B., IMBURGIA C., MACINDULTY D., MATTHEWS J., O'DONNELL K.,
 RA O'SHANNESSEY D., SCOTT M., GROOT P.H.E., MCPHEE C.;
 RL J. BIOL. CHEM. 272:16404-16413(1997).
 RN [4]
 RP SEQUENCE FROM N.A.
 RA DANTE M., GIBSON A.;
 RL SUBMITTED (AUG-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, LYMPHOCYTES,
 CC BASOPHILS AND EOSINOPHILS, BUT NOT NEUTROPHILS. SIGNALS THROUGH
 CC CCR2B AND CCR3 RECEPTORS. PLAYS A ROLE IN THE ACCUMULATION OF
 CC LEUKOCYTES AT BOTH SIDES OF ALLERGIC AND NONALLERGIC INFLAMMATION.
 CC MAY BE INVOLVED IN THE RECRUITMENT OF MONOCYTES INTO THE ARTERIAL
 CC WALL DURING THE DISEASE PROCESS OF ARTERIOSCLEROSIS. MAY PLAY A
 CC ROLE IN THE MONOCYTE ATTRACTION IN TISSUES CHRONICALLY EXPOSED TO
 CC EXOGENOUS PATHOGENS.
 CC -1- MASS SPECTROMETRY: MW-9314; MW_ERR-30; METHOD-MALDI; RANGE-17-98.
 CC -1- MASS SPECTROMETRY: MW-8760; MW_ERR-30; METHOD-MALDI; RANGE-22-98.
 CC -1- MASS SPECTROMETRY: MW-8575; MW_ERR-30; METHOD-MALDI; RANGE-24-98.
 CC -1- INDUCTION: BY INTERLEUKIN-1 AND TNF-ALPHA.
 CC -1- TISSUE SPECIFICITY: WIDELY EXPRESSED. FOUND IN SMALL INTESTINE,
 CC THYMUS, COLON, LUNG, TRACHEA, STOMACH AND LYMPH NODE. LOW LEVELS
 CC SEEN IN THE PULMONARY ARTERY SMOOTH MUSCLE CELLS.
 CC -1- THIS PROTEIN CAN BIND HEPARIN.
 CC -1- PTM: ONE MAJOR ISOFORM MCP-4, AND TWO MINOR ISOFORMS (LA)MCP-4 AND
 CC (FNPGLA)MCP-4 ARE PRODUCED BY DIFFERENTIAL SIGNAL CLEAVAGE.
 CC (LA)MCP-4 IS ABOUT 30 FOLD LESS ACTIVE THAN MCP-4.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL: U46767; G1732123; -;
 DR EMBL: AC002462; G2340091; -;
 DR MIM: 601391; -;
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOKINE; SIGNAL; GLYCOPROTEIN; INFLAMMATORY RESPONSE.
 FT SIGNAL 1 23
 FT CHAIN 24 98 MONOCYTE CHEMOTACTIC PROTEIN 4.
 FT MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID.
 FT DISULFID 34 58 BY SIMILARITY.
 FT DISULFID 35 74 BY SIMILARITY.
 FT CARBOHYD 29 29 POTENTIAL.
 FT SEQUENCE 98 AA: 10986 MW: DF52F6EC CRC32;
 Db 72 EICADPKKQWQ 83
 Qy 1 EICADPSQKQWQ 12
 RESULT 9
 ID MCP4_BOVIN STANDARD: PRT: 99 AA.
 AC P28291;
 DT 01-DEC-1992 (REL. 24, CREATED)
 DT 01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
 DT 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1A PRECURSOR (MCP-1A) (ACIDIC
 DE SEMINAL FLUID PROTEIN).
 OS BOS TAURUS (BOVINE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; ARTIODACTYLA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-SEMINAL PLASMA;
 RX MEDLINE: 92096117.
 RA WEMPE F., HENSCHEN A., SCHEIT K.H.;
 RL DNA CELL BIOL. 10:671-679(1991).
 RN [2]
 RP SEQUENCE FROM N.A.
 RC TISSUE-SEMINAL PLASMA;
 RX MEDLINE: 92181448.
 RA WEMPE F., EINSPANIER R., SCHEIT K.H.;

RL BIOCHEM. BIOPHYS. RES. COMMUN. 183:232-237(1992).
 RN [3]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 94338337.
 RA WEMPE F., KUHLMANN J.K., SCHEIT K.H.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 202:1272-1279(1994).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
 CC NEUTROPHILS.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 CC EMBL; L32659; G624394; -.
 CC EMBL; M84602; G163395; -.
 DR PIR; A39296; A39296.
 DR PIR; JC2336; JC2336.
 DR HSSP; P13500; IMCA.
 DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
 CC CYTOKINE; CHEMOTAXIS; SIGNAL.
 FT SIGNAL 1 23
 FT CHAIN 24 99
 FT MOD_RES 24 24
 FT DISULFID 34 59
 FT DISULFID 35 75
 FT CARBOHYD 40 40
 FT CARBOHYD 55 55
 FT CARBOHYD 112 112
 SO SEQUENCE 99 AA; 11114 MW; C8F5821D CRC32;
 Query Match 89.4%; Score 84; DB 1; Length 99;
 Best Local Similarity 83.3%; Pred. No. 7.51e-07;
 Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
 Db 73 EICADPKKQKWQ 84
 QY 1 EICADPSQKWQ 12
 RESULT 10
 ID MCP1_RABIT STANDARD; PRT; 125 AA.
 AC P28292;
 DT 01-DEC-1992 (REL. 24, CREATED)
 DT 01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1).
 GN SCY2.
 OS ORYCTOLAGUS CUNICULUS (RABBIT).
 CC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUTHERIA; LAGOMORPHA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-NEW ZEALAND WHITE; TISSUE=SPLEEN;
 RX MEDLINE; 91225489.
 RA YOSHIMURA T., YUHKI N.;
 RL J. IMMUNOL. 146:3483-3488(1991).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
 CC NEUTROPHILS.
 CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 CC EMBL; M57440; G165470; -.
 DR HSSP; P13500; IMCA.
 DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
 CC CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
 FT SIGNAL 1 23
 FT CHAIN 24 125
 FT MOD_RES 24 24
 FT DISULFID 34 59
 FT DISULFID 35 75
 FT CARBOHYD 40 40
 FT CARBOHYD 55 55
 FT CARBOHYD 112 112
 SO SEQUENCE 125 AA; 13776 MW; FBAGCD27 CRC32;
 Query Match 88.3%; Score 83; DB 1; Length 125;
 Best Local Similarity 90.9%; Pred. No. 1.31e-06;

Matches 10; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
 Db 74 ICADPKKQKWQ 84
 QY 2 ICADPSQKWQ 12
 RESULT 11
 ID EOTA_MOUSE STANDARD; PRT; 97 AA.
 AC P48298;
 DT 01-FEB-1996 (REL. 33, CREATED)
 DT 01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
 GN SCY11.
 OS MUS MUSCULUS (MOUSE).
 CC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUTHERIA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE=LUNG;
 RX MEDLINE; 96004658.
 RA ROTHENBERG M.E., LUSTER A.D., LEDER P.;
 RL PROC. NATL. ACAD. SCI. U.S.A. 92:8960-8964(1995).
 RN [2]
 RP SEQUENCE FROM N.A.
 RC STRAIN-C57BL/6J; TISSUE=LUNG;
 RX MEDLINE; 96158746.
 RA GONZALO J.-A., JIA G.-Q., AGUIRRE V., FRIEND D., COYLE A.J.,
 RA JENKINS N.A., LIN G.-S., KATZ H., LICHTMAN A., COPELAND N.G., KOPE M.,
 RA GUTIERREZ-RAMOS J.-C.;
 RL IMMUNITY 4:1-14(1996).
 CC -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
 CC DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS (A PROMINENT
 CC FEATURE OF ALLERGIC INFLAMMATORY REACTIONS), BUT NOT
 CC LYMPHOCYTES, MACROPHAGES OR NEUTROPHILS.
 CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
 CC -1- TISSUE SPECIFICITY: EXPRESSED CONSTITUTIVELY IN THE THYMUS.
 CC EXPRESSION INDUCIBLE IN THE LUNG (TYPE I ALVEOLAR EPITHELIAL
 CC CELLS), INTESTINE, HEART, SPLEEN, KIDNEY.
 CC -1- INDUCTION: BY INTERFERON-GAMMA AND LIPOPOLYSACCHARIDE (LPS).
 CC -1- PTM: O-GLYCOSYLATED (PROBABLE).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 CC EMBL; U26426; G995911; -.
 DR EMBL; U40672; G113937; -.
 DR MGD; MG1:103576; SCY11.
 DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
 CC EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
 KW INFLAMMATORY RESPONSE.
 FT SIGNAL 1 23
 FT CHAIN 24 97
 FT DISULFID 32 57
 FT DISULFID 33 73
 SO SEQUENCE 97 AA; 10893 MW; F85A96BC CRC32;
 Query Match 87.2%; Score 82; DB 1; Length 97;
 Best Local Similarity 83.3%; Pred. No. 2.28e-06;
 Matches 10; Conservative 0; Mismatches 2; Indels 0; Gaps 0;
 Db 71 EICADPKKQKWQ 82
 QY 1 EICADPSQKWQ 12
 RESULT 12
 ID EOTA_RAT STANDARD; PRT; 97 AA.
 AC P97545; 008780;
 DT 15-JUL-1998 (REL. 36, CREATED)
 DT 15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
 OS RATIUS NORVEGICUS (RAT).

OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; ROBERTIA.
 RN [1]
 RN SEQUENCE FROM N.A.
 RA WILLIAMS C.M., NEWTON D.J., WILSON S.A., COLEMAN J.C.,
 RA FLANAGAN B.F.;
 RL SUBMITTED (DEC-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [2]
 RN SEQUENCE FROM N.A.
 RC TISSUE-LUNG;
 RA ISHII Y.;
 RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 CC -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
 CC DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT
 CC FEATURE OF ALLERGIC INFLAMMATORY REACTIONS (BY SIMILARITY).
 CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
 CC -1- PTM: O-GLYCOSYLATED (PROBABLE).
 CC -1- SIMILARITY: BELONGS TO THE INTERFERON BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 CC EMBL: Y08358; E274141; -;
 DR EMBL: Y08358; E274141; -;
 DR PROSITE: P500472; SMALL_CYTOKINES_CC; 1.
 KW EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
 KW INFLAMMATORY RESPONSE.
 FT SIGNAL 1 23 POTENTIAL.
 FT CHAIN 24 97 EOTAXIN.
 FT DISULFID 32 57 BY SIMILARITY.
 FT DISULFID 33 73 BY SIMILARITY.
 FT CARBOHYD 94 94 POTENTIAL.
 FT CONFLICT 3 3 L->S (IN REF. 2).
 SQ SEQUENCE 97 AA; 10851 MW; 0584ED45 CRC32;
 Query Match 87.2%; Score 82; DB 1; Length 97;
 Best Local Similarity 83.3%; Pred. No. 2,28e-06;
 Matches 10; Conservative 0; Mismatches 2; Indels 0; Gaps 0;
 Db 71 EICADPKKKWQ 82
 QY 1 EICADPSQKRWQ 12
 RESULT 13
 ID MIR4_HUMAN STANDARD; PRT; 89 AA.
 AC P55774;
 DT 01-NOV-1997 (REL. 35, CREATED)
 DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MACROPHAGE INFLAMMATORY PROTEIN 4 PRECURSOR (MIP-4) (PULMONARY AND
 DE ACTIVATION-REGULATED CHEMOKINE) (CC CHEMOKINE PARC) (ALTERNATIVE
 DE SCA18 OR MIP4.
 GN SC1A18 OR MIP4.
 OS HOMO SAPIENS (HUMAN).
 CC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUTHERIA; PRIMATES.
 RN [1]
 RN SEQUENCE FROM N.A.
 RA LI H., RUBEN S.;
 RL PATENT NUMBER US5504003.
 RN [2]
 RN SEQUENCE FROM N.A., AND PARTIAL SEQUENCE.
 RC TISSUE-AORTA, AND LONG;
 RX MEDLINE: 97376836.
 RA HISASHIMA K., IMAI T., BABA M., SHOUDAI K., ISHIZUKA K.,
 RA NAKAGAWA T., TSURUTA J., TAKEYA M., SAKAKI Y., TAKATSUKI K.,
 RA MIRA R., OPDENAKKER G., VAN DAMME J., YOSHIE O., NOMIYAMA H.;
 RL J. IMMUNOL. 159:1140-1149(1997).
 RN [3]
 RN SEQUENCE FROM N.A.
 RA KOEHLER V., MOELLER C., POLITZ O., HAKIY N., OREANOS C.E., GOERDT S.;
 RL SUBMITTED (AUG-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [4]
 RN DISCUSSION OF SEQUENCE.
 RX MEDLINE: 97275308.

RA WELLS T.N.C., PETTSCH M.C.;
 RL J. LEUKOC. BIOL. 61:545-550(1997).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS LYMPHOCYTES BUT NOT
 CC MONOCYTES OR GRANULOCYTES. MAY BE INVOLVED IN B CELL MIGRATION
 CC INTO B CELL FOLLICLES IN LYMPH NODES.
 CC -1- TISSUE SPECIFICITY: EXPRESSED AT HIGH LEVELS IN THE LUNG. A LOWER
 CC LEVEL EXPRESSION IS SEEN IN LYMPHOID TISSUES SUCH AS LYMPH NODES,
 CC THYMUS AND APPENDIX.
 CC -1- INDUCTION: BY LIPOPOLYSACCHARIDE (LPS).
 CC -1- SIMILARITY: BELONGS TO THE INTERFERON BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 CC EMBL: AB000221; D1032520; -;
 DR EMBL: Y13710; E321838; -;
 DR PROSITE: P500472; SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
 FT SIGNAL 1 20
 FT CHAIN 21 89 MACROPHAGE INFLAMMATORY PROTEIN 4.
 FT DISULFID 30 54 BY SIMILARITY.
 FT DISULFID 31 70 BY SIMILARITY.
 SQ SEQUENCE 89 AA; 9849 MW; 052AA3DC CRC32;
 Query Match 86.2%; Score 81; DB 1; Length 89;
 Best Local Similarity 75.0%; Pred. No. 3,96e-06;
 Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
 Db 68 QICADPKKKWQ 79
 QY 1 EICADPSQKRWQ 12
 RESULT 14
 ID EOT4_HUMAN STANDARD; PRT; 97 AA.
 AC P51671; P50877; Q92490; Q92491;
 DT 01-OCT-1996 (REL. 34, CREATED)
 DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
 DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
 DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
 GN SC1A11.
 OS HOMO SAPIENS (HUMAN).
 CC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUTHERIA; PRIMATES.
 RN [1]
 RN SEQUENCE FROM N.A.
 RA MEDLINE: 96181758.
 RA GARCIA-ZEPEDA E.A., ROTHENBERG M.E., OMBEY T.R., LEDER P.,
 RA LUSTER A.D.;
 RL NAT. MED. 2:449-456(1996).
 RN [2]
 RN SEQUENCE FROM N.A.
 RA MEDLINE: 96189937.
 RA PONATH P.D., QIN S., RINGLER D.J., CLARK-LEWIS I., WANG J., KASSAM N.,
 RA SMITH H., SHI X., GONZALO J.A., NEWMAN W., GUTIERREZ-RAMOS J.C.,
 RA MACRAV C.R.;
 RL J. CLIN. INVEST. 97:604-612(1996).
 RN [3]
 RN SEQUENCE FROM N.A.
 RA TISSUE-SMALL INTESTINE;
 RX MEDLINE: 96205964.
 RA KITAHARA M., NAKAJIMA T., IMAI T., HARADA S., COMBADIERE C.,
 RA TIFANY H.L., MURPHY P.M., YOSHIE O.;
 RL J. BIOL. CHEM. 271:7725-7730(1996).
 RN [4]
 RN SEQUENCE FROM N.A., SEQUENCE OF 60-65 AND 75-88, AND VARIANTS.
 RC TISSUE-FORESKIN;
 RX MEDLINE: 96374440.
 RA BARRELS J., SCHLEETER C., RICHTER E., NOSO N., KULKE R.,
 RA CHRISTOPHERS E., SCHROEDER J.M.;
 RL BIOCHEM. BIOPHYS. RES. COMMON. 225:1045-1051(1996).
 RN [5]
 RN SEQUENCE FROM N.A.
 RA TISSUE-PLACENTA;
 RX MEDLINE: 97312708.
 RA GARCIA-ZEPEDA E.A., ROTHENBERG M.E., WEREMOWICZ S., SARATI M.N.,

RA MORTON C.C., LUSTER A.D.;
 RL GENOMICS 41:471-476(1997).
 RN [6]
 RP SEQUENCE FROM N.A.
 RC TISSUE=LUNG;
 RX MEDLINE: 97445071.
 RA HEIN H., SCHUEFER C., KULKE R., CHRISTOPHERS E., SCHROEDER J.M.,
 RA BATES J.J.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 237:537-542(1997).
 CC -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
 CC DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT
 CC FEATURE OF ALLERGIC INFLAMMATORY REACTIONS.
 CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
 CC -1- PTM: O-GLYCOSYLATED (PROBABLE).
 CC -1- INDUCTION: BY TNF-ALPHA, IL-1-ALPHA AND INTERFERON GAMMA.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL: U46573; G1280141; -;
 DR EMBL: U34780; G1185440; -;
 DR EMBL: D49372; G1552241; -;
 DR EMBL: Z62291; E221070; -;
 DR EMBL: Z75668; E251275; -;
 DR EMBL: Z75669; E251258; -;
 DR EMBL: U46572; G2088509; -;
 DR EMBL: Z92709; E329504; -;
 DR MIM: 601156; -;
 DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1;
 KW EOSINOPHIL; CYTOKINE; CHEMOKINES; GLYCOPROTEIN; SIGNAL;
 KM INFLAMMATORY RESPONSE; POLYMORPHISM.
 FT SIGNAL 1 23 POTENTIAL.
 FT CHAIN 24 97 EOTAXIN.
 FT DISULFID 32 57 BY SIMILARITY.
 FT DISULFID 33 73 BY SIMILARITY.
 FT VARIANT 7 7 L -> P (IN CLONE 34).
 FT VARIANT 23 23 A -> T (IN CLONE 53).
 FT VARIANT 51 51 R -> S (IN CLONE 34).
 FT VARIANT 79 79 K -> R (IN CLONE 53).
 SQ SEQUENCE 97 AA; 10732 MW; 6C0F3D98 CRC32;
 Query Match 86.2%; Score 81; DB 1; Length 97;
 Best Local Similarity 75.0%; Pred. No. 3.96e-06;
 Matches 9; Conservative 1; Mismatches 2; Indels 0; Gaps 0;
 Db 71 DICADPKKKWV 82
 QY 1 EICADPSQKWV 12
 RESULT 15
 ID MCP5 MOUSE STANDARD; PRT: 104 AA.
 AC 062401;
 DT 01-NOV-1997 (REL. 35, CREATED)
 DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 5 PRECURSOR (MCP-5) (MCP-1 RELATED
 DE CHEMOKINE).
 DE SCYAL2 OR MCP5.
 US MUS MUSCULUS (MOUSE).
 OC EUKARYOTA; METAOGA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 97079149.
 RA JIA G.-Q., GONZALO J.A., LLOYD C., KREMER L., LU L., MARTINEZ A.C.,
 RA WERSHIL B.K., GUTIERREZ- RAMOS J.C.;
 RL J. EXP. MED. 184:1939-1951(1996).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 97149438.
 RA SAAFI M.N., GARCIA-ZEPEDA E.A., MACLEAN J.A., CHARO I.F.,
 RA LOSTER A.D.;
 RL J. EXP. MED. 185:99-109(1997).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS EOSINOPHILS, MONOCYTES,

CC AND LYMPHOCYTES BUT NOT NEUTROPHILS. POTENT MONOCYTE ACTIVE
 CC CHEMOKINE THAT SIGNALS THROUGH CCR2. INVOLVED IN ALLERGIC
 CC INFLAMMATION AND THE HOST RESPONSE TO PATHOGENS AND MAY PLAY A
 CC PIVOTAL ROLE DURING EARLY STAGES OF ALLERGIC LUNG INFLAMMATION.
 CC -1- SUBUNIT: HOMODIMER (BY SIMILARITY).
 CC -1- TISSUE SPECIFICITY: PREDOMINANTLY EXPRESSED IN THE LYMPH NODES AND
 CC THYMUS. ALSO FOUND IN THE SALIVARY GLANDS CONTAINING LYMPH NODES,
 CC BREAST, HEART, LUNG, BRAIN, SMALL INTESTINE, KIDNEY AND COLON.
 CC -1- INDUCTION: BY IFN-GAMMA AND LIPOPOLYSACCHARIDE (LPS).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL: U50712; G1477582; -;
 DR EMBL: U66670; G1881583; -;
 DR MGI:108224; SCYAL2.
 DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1;
 KW CYTOKINE; CHEMOKINES; SIGNAL; INFLAMMATORY RESPONSE.
 FT SIGNAL 1 22 BY SIMILARITY.
 FT CHAIN 23 104 MONOCYTE CHEMOTACTIC PROTEIN 5.
 FT DISULFID 33 58 BY SIMILARITY.
 FT DISULFID 34 74 BY SIMILARITY.
 SQ SEQUENCE 104 AA; 11659 MW; 08FAC35 CRC32;
 Query Match 83.0%; Score 78; DB 1; Length 104;
 Best Local Similarity 81.8%; Pred. No. 2.04e-05;
 Matches 9; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
 Db 72 EICADPKKKWV 82
 QY 1 EICADPSQKWV 11
 RESULT 16
 ID M1A_HUMAN STANDARD; PRT: 92 AA.
 AC P10147;
 DT 01-MAR-1989 (REL. 10, CREATED)
 DT 01-MAR-1989 (REL. 10, LAST SEQUENCE UPDATE)
 DT 01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
 DE MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA PRECURSOR (MIP-1-ALPHA)
 DE (TONSILLAR LYMPHOCYTE LDB8 ALPHA PROTEIN) (G0S19-1 PROTEIN) (SIS-BETA)
 DE (PAT 464.1) (SMALL INDUCIBLE CYTOKINE A3).
 DE CYT3 OR MIP1A.
 OS HOMO SAPIENS (HUMAN).
 GN CYT3 OR MIP1A.
 OC EUKARYOTA; METAOGA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 86223879.
 RA OBARU K., FUKUDA M., MAEDA S., SHIMADA K.;
 RL J. BIOCHEM. 99:885-894(1986).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 89140347.
 RA ZIEFEL P.F., BALKE J., IRVING S.G., KELLY K., SIEBENLIST U.;
 RL J. IMMUNOL. 142:1582-1590(1989).
 RN [3]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 91103879.
 RA BLOM S., FORSDYKE R.E., FORSDYKE D.R.;
 RL DNA CELL BIOL. 9:589-602(1990).
 RN [4]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 90287155.
 RA NAKAO M., NOMIYAMA H., SHIMADA K.;
 RL MOL. CELL. BIOL. 10:3646-3658(1990).
 CC -1- FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES.
 CC -1- INDUCTION: BY TPA OR PHA (TPA = 12-O-TETRADECANOYL PHORBOL-13
 CC ACETATE (TUMOR PROMOTER); PHA = PHYTOHEMAGGLUTININ (T-CELL
 CC MITOGEN)).
 CC -1- SIMILARITY: LD78-ALPHA AND -BETA ARE VERY CLOSELY RELATED.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL: D00044; D1000469; -;
 DR EMBL: M23452; G188559; -;


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DR EMBL: M25315; G602453; -.
DR EMBL: X03754; G758089; -.
DR EMBL: X04018; G34287; ALT_SEQ.
DR EMBL: M23178; G182847; -.
DR EMBL: D90144; G219906; -.
DR PIR: A24198; A24198.
DR PIR: A30574; A30574.
DR HSSP: P13236; IHUM.
DR MIM: 182283; -.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
FT SIGNAL 1 22 POTENTIAL.
FT CHAIN 23 92 MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA.
FT DISULFID 33 57 BY SIMILARITY.
FT DISULFID 34 73 BY SIMILARITY.
SQ SEQUENCE 92 AA; 10085 MW; C24DD919 CRC32;

Query Match 81.9%; Score 77; DB 1; Length 92;
Best Local Similarity 66.7%; Pred. No. 3.51e-05;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 71 QVCADPSESWQ 82
QY 1 EICADPSSQKWQ 12

RESULT 17
ID M10_HUMAN STANDARD; PRT; 92 AA.
AC P13236; P22617; Q13704;
DI 01-JAN-1990 (REL. 13, CREATED)
DT 01-JAN-1990 (REL. 13, LAST SEQUENCE UPDATE)
DE MACROPHAGE INFLAMMATORY PROTEIN 1-BETA PRECURSOR (MIP-1-BETA) (T-CELL
DE ACTIVATION GENE-1 PROTEIN) (LAG-1) (HC21) (SMALL INDUCIBLE CYTOKINE
DE A4) (G-26 T LYMPHOCYTE-SECRETED PROTEIN).
OS SCY4 OR MIP1B OR LAG1.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; PRIMATES.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 89071764.
RA LIPES M.A., NAPOLITANO M., JEANG K.-T., CHANG N.T., LEONARD W.J.;
RA PROC. NATL. ACAD. SCI. U.S.A. 85:9704-9708(1988).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 89140347.
RA ZIPPEL P.F., BAILEY J., IRVING S.G., KELLY K., SIEBENLIST U.;
RA J. IMMUNOL. 142:1582-1590(1989).
RN [3]
RP SEQUENCE FROM N.A.
RX MEDLINE: 89093958.
RA BROWN K.D., ZURAWSKI S.M., MOSMANN T.R., ZURAWSKI G.;
RA J. IMMUNOL. 142:679-687(1989).
RN [4]
RP SEQUENCE FROM N.A.
RX MEDLINE: 91061800.
RA BAIXERAS E., ROMAN-ROMAN S., JITSURKAWA S., GENEVEVE C., MECCHICHE S.,
RA VIEGAS-POUGNOT E., HERCEND T., TRIEBEL F.;
RA MOL. IMMUNOL. 27:1091-1102(1990).
RN [5]
RP SEQUENCE FROM N.A.
RC TISSUE-T-CELL;
RA CHANG H.C., REINHARDT E.L.;
RA EUR. J. IMMUNOL. 19:1045-1051(1989).
RN [6]
RP SEQUENCE FROM N.A.
RX MEDLINE: 91373378.
RA NAPOLITANO M., MODI W.S., CEVARIO S.J., GARRA J.R., SEUNANZ H.N.,
RA LEONARD W.J.;
RA J. BIOL. CHEM. 266:17531-17536(1991).

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RN [7]
RP SEQUENCE OF 6-92 FROM N.A.
RX MEDLINE: 90038522.
RA MILLER M.D., HATA S., WAL MALEFY R., KRANGEL M.S.;
RA J. IMMUNOL. 143:2907-2916(1989).
RN [8]
RP STRUCTURE BY NMR.
RX MEDLINE: 94182137.
RA LODI P.J., GARRETT D.S., KUSCEWSKI J., TSANG M.L.S., WEATHERBEE J.A.,
RA LEONARD W.J., GRONENBORN A.M., CLORE G.M.;
RA SCIENCE 263:1762-1767(1994).
CC -1- FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES.
CC -1- SUBUNIT: HOMODIMER.
CC -1- INDUCTION: BY MITOGENS.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC -C) (CHEMOKINE CC).
DR EMBL: M23502; G533213; -.
DR EMBL: M25316; G602455; -.
DR EMBL: J04130; G178018; -.
DR EMBL: X53683; G34218; -.
DR EMBL: X53682; G35870; ALT_SEQ.
DR EMBL: X16166; G32036; -.
DR EMBL: M69203; G1332376; -.
DR EMBL: M69201; G1332376; JOINED.
DR EMBL: M69202; G1332376; JOINED.
DR EMBL: M57503; G339727; -.
DR PIR: A31767; A31767.
DR PIR: B30574; B30574.
DR PIR: D30552; D30552.
DR PIR: JH0319; JH0319.
DR PIR: A37411; A37411.
DR PDB: 1HUM; 30-APR-94.
DR MIM: 182284; -.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL; 3D-STRUCTURE.
FT SIGNAL 1 23
FT CHAIN 24 92 MACROPHAGE INFLAMMATORY PROTEIN 1-BETA.
FT DISULFID 34 58 BY SIMILARITY.
FT DISULFID 35 74 BY SIMILARITY.
FT CONFLICT 6 6 T -> C (IN REF. 7).
FT CONFLICT 15 15 A -> S (IN REF. 6).
FT CONFLICT 20 20 P -> L (IN REF. 2).
FT CONFLICT 40 45 ARKPR -> REAS (IN REF. 3).
FT CONFLICT 56 56 S -> I (IN REF. 7).
FT CONFLICT 70 70 S -> G (IN REF. 6).
FT CONFLICT 80 80 S -> T (IN REF. 7).
FT STRAND 29 29
FT STRAND 33 33
FT HELIX 45 47
FT STRAND 50 53
FT STRAND 63 66
FT STRAND 72 75
FT TURN 77 78
FT HELIX 80 90
SQ SEQUENCE 92 AA; 10212 MW; F18E7AFD CRC32;

Query Match 81.9%; Score 77; DB 1; Length 92;
Best Local Similarity 66.7%; Pred. No. 3.51e-05;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 72 QVCADPSESWQ 83
QY 1 EICADPSSQKWQ 12

RESULT 18
ID M10_HUMAN STANDARD; PRT; 93 AA.
AC P16619;
DI 01-AUG-1990 (REL. 15, CREATED)
DT 01-AUG-1990 (REL. 15, LAST SEQUENCE UPDATE)
DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
DE TONSILLAR LYMPHOCYTE LD78 BETA PROTEIN PRECURSOR (GOS19-2 PROTEIN)

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FT SIGNAL 1 22 BY SIMILARITY.
FT CHAIN 23 101 INTERLEUKIN-8.
FT DISULFID 34 61 BY SIMILARITY.
FT DISULFID 36 77 BY SIMILARITY.
SQ SEQUENCE 101 AA: 11292 MW: 5A574527 CRC32;
Query Match 80.9%; Score 76; DB 1: Length 101;
Best Local Similarity 66.7%; Pted. No. 6.01e-05;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;
Db 75 EVCLDPKRWQ 86
QY 1 EICADPSQKWQ 12

RESULT 21
ID IL8_CANFA STANDARD; PRT; 101 AA.
AC P41324;
DT 01-FEB-1995 (REL. 31, CREATED)
DT 01-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE)
DT 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
DE INTERLEUKIN-8 PRECURSOR (IL-8).
GN IL8.
OS CANIS FAMILIARIS (DOG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; CARNIVORA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 94010328.
RA ISHIKAWA J., SUZUKI S., HOTTA K., HIROTA Y., MIZUNO S., SUZUKI K.;
RL GENE 131:305-306(1993).
RN [2]
RP SEQUENCE FROM N.A.
RC TISSUE-LYMPH NODE;
RX MEDLINE: 95127913.
RA MATSUMOTO Y., MOHAMED A., ONODERA T., KATO H., OHASHI T.,
RA ISHIKAWA J., HOTTA K., SUZUKI K., HIROTA Y.;
RL CYTOKINE 6:455-461(1994).
RN [3]
RP SEQUENCE FROM N.A.
RC STRAIN-MONGREL; TISSUE-JUGULAR VEIN;
RX MEDLINE: 95114148.
RA KUKIELA G.L., SMITH W.C., LAROSA G.J., MANNING A.M.,
RA MENDOZA L.H., DALY T.J., HUGHES B.J., YOKER K.A., HAWKINS H.K.,
RA MICHAEL L.H., ROT A., ENTMAN M.L.;
RL J. CLIN. INVEST. 95:89-103(1994).
CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
CC BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
CC RESPONSE TO AN INFLAMMATORY STIMULUS.
CC -1- SUBUNIT: HOMODIMER.
CC -1- SIMILARITY: BELONGS TO THE INTERCINE ALPHA FAMILY (SMALL CYTOKINE
CC C-X-C) (CHEMOKINE CXCL).
DR EMBL: D2872; G517100; -;
DR EMBL: D14285; G475152; -;
DR EMBL: U10308; G607814; -;
DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; 1.
KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
FT SIGNAL 1 22 BY SIMILARITY.
FT CHAIN 23 101 INTERLEUKIN-8.
FT DISULFID 34 61 BY SIMILARITY.
FT DISULFID 36 77 BY SIMILARITY.
SQ SEQUENCE 101 AA: 11280 MW: 7C49D63D CRC32;
Query Match 80.9%; Score 76; DB 1: Length 101;
Best Local Similarity 66.7%; Pted. No. 6.01e-05;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;
Db 75 EVCLDPKRWQ 86
QY 1 EICADPSQKWQ 12

RESULT 22
ID IL8_PIG STANDARD; PRT; 103 AA.
AC P26894; P22951;
DT 01-AUG-1991 (REL. 19, CREATED)
DT 01-AUG-1992 (REL. 23, LAST SEQUENCE UPDATE)
DT 01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
DE INTERLEUKIN-8 PRECURSOR (IL-8) (ALVEOLAR MACROPHAGE CHEMOTACTIC FACTOR
DE I) (AMCF-I).
GN IL8.
OS SUS SCROFA (PIG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; ARTIODACTYLA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 94103307.
RA LIN G., PEARSON A.E., SCAMURRA R.W., ZHOU Y., BAARSCH M.J.,
RA WEISS D.J., MURTAUGH M.P.;
RL J. BIOL. CHEM. 269:77-85(1994).
RN [2]
RP SEQUENCE FROM N.A.
RA SANJANALA M.;
RL SUBMITTED (JUL-1991) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [3]
RP SEQUENCE FROM N.A., AND SEQUENCE OF 26-45.
RC TISSUE-LUNG;
RX MEDLINE: 93041741.
RA GOODMAN R.B., FOSTER D.C., MATHEWS S.L., OSBORN S.G., KUIPERS J.L.,
RA FORSTROM J.W., MARTIN T.R.;
RL BIOCHEMISTRY 31:10483-10490(1992).
RN [4]
RP REVISION TO 23.
RA GOODMAN R.B.;
RL SUBMITTED (MAR-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [5]
RP SEQUENCE OF 26-45.
RC STRAIN-FORSKSHIRE;
RX MEDLINE: 91217086.
RA GOODMAN R.B., FORSTROM J.W., OSBORN S.G., CHI E.Y., MARTIN T.R.;
RL J. BIOL. CHEM. 266:8455-8463(1991).
CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
CC BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
CC RESPONSE TO AN INFLAMMATORY STIMULUS.
CC -1- SUBUNIT: HOMODIMER.
CC -1- TISSUE SPECIFICITY: ALVEOLAR MACROPHAGES.
CC -1- INDUCTION: BY LIPOPOLYSACCHARIDE.
CC -1- SIMILARITY: BELONGS TO THE INTERCINE ALPHA FAMILY (SMALL CYTOKINE
CC C-X-C) (CHEMOKINE CXCL).
DR EMBL: M86923; G164521; -;
DR EMBL: X61151; G516197; -;
DR EMBL: M99367; G1235612; -;
DR PIR: A44253; A44253.
DR PIR: A39819; A39819.
DR HSSP: P10145; 31L8.
DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; 1.
KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
FT SIGNAL 1 25
FT CHAIN 26 103 INTERLEUKIN-8.
FT DISULFID 34 61 BY SIMILARITY.
FT DISULFID 36 77 BY SIMILARITY.
FT CONFLICT 33 34 RC -> CR (IN REF. 5).
FT CONFLICT 87 87 K -> KK (IN REF. 2).
SQ SEQUENCE 103 AA: 11633 MW: A012D59D CRC32;
Query Match 80.9%; Score 76; DB 1: Length 103;
Best Local Similarity 66.7%; Pted. No. 6.01e-05;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;
Db 75 EVCLDPKRWQ 86
QY 1 EICADPSQKWQ 12

RESULT 23
ID MCPI1_RAT STANDARD: PRT: 148 AA.
AC P14844;
U1 01-APR-1990 (REL. 14, CREATED)
U1 01-APR-1990 (REL. 14, LAST SEQUENCE UPDATE)
U1 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (IMMEDIATE-EARLY
DE SERUM-RESPONSIVE JE PROTEIN).
GN SCY22 OR JE OR MCP1.
OS RATTUS NORVEGICUS (RAT).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-WAG/RIT; TISSUE-KIDNEY;
RA MEDLINE; 90174947.
RL TIMERS H.T.H.M., PRONK G.J., BOS J.L., VAN DER EB A.J.;
RL NUCLEIC ACIDS RES. 18:23-34(1990).
RN [2]
RP SEQUENCE FROM N.A.
RA MEDLINE; 91128376.
RX YOSHIMURA T., TAKEYA M., TAKAHASHI K.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 174:504-509(1991).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC NEUTROPHILS.
CC -1- SUBUNIT: MONOMER OR HOMODIMER, IN EQUILIBRIUM (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
CC EMBL; X17053; G55531; -;
DR EMBL; M57441; G205334; -;
DR PIR; JN0128; JN0128.
DR PIR; S07723; S07723.
DR HSSP; P13500; IMCA.
DR PROSITE; PS00472; SMALL-CYTOKINES_CC; 1.
DR CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
FT SIGNAL 1 23
FT CHAIN 24 148
FT MOD_RES 24 24
FT DISULFID 34 59
FT DISULFID 35 75
FT CARBOHYD 126 126
SQ SEQUENCE 148 AA; 16460 MW; DB97F97C CRC32;

Query Match 80.9%; Score 76; DB 1; Length 148;
Best Local Similarity 75.0%; Pred. No. 6.01e-05;
Matches 9; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 73 EICADPNKEWQ 84
|||||: |||
OY 1 EICADPSQKWO 12

RESULT 24
ID M11A_RAT STANDARD: PRT: 92 AA.
AC P50229;
U1 01-OCT-1996 (REL. 34, CREATED)
U1 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
U1 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
DE MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA PRECURSOR (MIP-1-ALPHA).
GN SCY43 OR MIP1A.
OS RATTUS NORVEGICUS (RAT).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-CD-1; TISSUE-LUNG;
RA MEDLINE; 95298037.
RX SHI M.M., GODLESKI J.J., PAULUSKIS J.D.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 211:289-295(1995).
RN [2]
RP SEQUENCE FROM N.A.

RC STRAIN-LONG EVANS; TISSUE-LUNG;
RX MEDLINE; 95238980.
RA SHANLEY T.P., SCHMAL H., FRIEDL H.P., JONES M.L., WARD P.A.;
RL J. IMMUNOL. 154:4793-4802(1995).
RN [3]
RP SEQUENCE OF 24-57.
RC STRAIN-WISTAR.
RX MEDLINE; 96183056.
RA NARAGAWA H., SHIOTA S., TAKANO K., SHIBATA F., KATO H.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 220:945-948(1996).
CC -1- FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES.
CC HAS CHEMOTACTIC ACTIVITY FOR MONOCYTES, NEUTROPHILS, EOSINOPHILS,
CC BASOPHILS, AND LYMPHOCYTES. REQUIRED FOR LUNG TNF-ALPHA
CC PRODUCTION, NEUTROPHIL RECRUITMENT AND SUBSEQUENT LUNG INJURY AND
CC MAY FUNCTION AS AN AUTOCRINE MEDIATOR FOR THE MACROPHAGE
CC PRODUCTION OF TNF-ALPHA WHICH IN TURN UP-REGULATES VASCULAR
CC ADHESION MOLECULES REQUIRED FOR NEUTROPHIL INFLUX. THIS PROTEIN
CC BINDS HEPARIN.
CC -1- INDUCTION: BY LIPOPOLYSACCHARIDE (LPS).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
CC EMBL; U22414; G790633; -;
DR EMBL; U06435; G459150; -;
DR PROSITE; PS00472; SMALL-CYTOKINES_CC; 1.
DR CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL; HEPARIN-BINDING.
FT SIGNAL 1 23
FT CHAIN 24 92
FT DISULFID 34 57
FT DISULFID 35 73
FT CONFLICT 6 6
FT CONFLICT 57 57
SQ SEQUENCE 92 AA; 10335 MW; F48CF89F CRC32;

Query Match 79.8%; Score 75; DB 1; Length 92;
Best Local Similarity 66.7%; Pred. No. 1.03e-04;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 71 QICADPKETWQ 82
|||||: |||
OY 1 EICADPSQKWO 12

RESULT 25
ID CCCL_HUMAN STANDARD: PRT: 93 AA.
AC Q16627;
U1 01-NOV-1997 (REL. 35, CREATED)
U1 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
U1 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
DE CHEMOKINE CC-1 PRECURSOR (HCC-1) (NCC-2).
GN SCY414 OR NCC2.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; PRIMATES.
RN [1]
RP SEQUENCE FROM N.A. AND SEQUENCE OF 20-93.
RC TISSUE-BONE MARROW;
RX MEDLINE; 96136773.
RA SCHULZ-KNAPPE P., MAEGERT H.-J., DEWALD B., MEYER M., CETIN Y.,
RA KUBIES M., TOMCZAKOWSKI J., KIRCHHOFF K., RAIDA M., ADERMANN K.,
RA KIST A., REINECKE M., SILLARD R., PARDIGOL A., UGUCCIONI M.,
RA BAGGIOLINI M., FORSSMANN W.-G.;
RL J. EXP. MED. 183:295-299(1996).
RN [2]
RP SEQUENCE FROM N.A.
RC TISSUE-LIVER;
RA PARDIGOL A., MAEGERT H.-J., ZUCHT H.D., FORSSMANN W.-G.,
RA SCHULZ-KNAPPE P.;
RL SUBMITTED (MAY-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [3]
RP SEQUENCE FROM N.A.
RC TISSUE-PLACENTA;
RA PARDIGOL A., MAEGERT H.-J., CIESLAK A., HILL O., SCHULZ-KNAPPE P.,
RA FORSSMANN W.-G.;


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CC -1- TISSUE SPECIFICITY: T-CELL AND MACROPHAGE SPECIFIC.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: M77747; G200650; -.
DR EMBL: S37648; G250208; -.
DR EMBL: U02298; G460091; -.
DR EMBL: X70675; G475206; -.
DR HSSP: P13236; IHDM.
DR MGI: 98262; SCYAS.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; T-CELL; SIGNAL; INFLAMMATORY RESPONSE.
FT SIGNAL 1 23
FT CHAIN 24 91 T-CELL SPECIFIC RANTES PROTEIN.
FT DISULFID 33 57 POTENTIAL.
FT DISULFID 34 57 BY SIMILARITY.
FT CONFLICT 19 73 T->A (IN REF. 2).
FT CONFLICT 41 41 A->E (IN REF. 1).
SQ SEQUENCE 91 AA; 10071 MW; E616A203 CRC32;

Query Match 78.7%; Score 74; DB 1; Length 91;
Best Local Similarity 58.3%; Pred. No. 1.75e-04;
Matches 7; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Db 71 QVCANPEKRWQ 82
:|:|:|:|
QY 1 EICADPSQKWQ 12

RESULT 29
ID MILB_RABIT STANDARD; PRT; 92 AA.
AC P46632;
DT 01-NOV-1995 (REL. 32, CREATED)
DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
DT 01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
DE MACROPHAGE INFLAMMATORY PROTEIN 1-BETA PRECURSOR (MIP-1-BETA) (IMMUNE
DE ACTIVATION PROTEIN 2) (ACT-2).
GN SCY4.
OS ORYCTOLAGUS CUNICULUS (RABBIT).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; LAGOMORPHA.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-NEW ZEALAND WHITE;
RX MEDLINE: 94198229.
KA MORT S., GOTO K., GOTO F., MOTAKAMI K., OKAMURA S., YOSHINAGA M.;
RL INT. IMMUNOL. 6:149-156(1994).
CC -1- FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES
CC (BY SIMILARITY).
CC -1- SUBUNIT: HOMODIMER (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: D17402; G599578; -.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
FT SIGNAL 1 23
FT CHAIN 24 92 BY SIMILARITY.
FT DISULFID 34 58 MACROPHAGE INFLAMMATORY PROTEIN 1-BETA.
FT DISULFID 35 74 BY SIMILARITY.
SQ SEQUENCE 92 AA; 10066 MW; A629AB2D CRC32;

Query Match 78.7%; Score 74; DB 1; Length 92;
Best Local Similarity 58.3%; Pred. No. 1.75e-04;
Matches 7; Conservative 4; Mismatches 1; Indels 0; Gaps 0;

Db 72 QVCANPEKRWQ 83
:|:|:|:|
QY 1 EICADPSQKWQ 12

RESULT 30
ID SISD_RAT STANDARD; PRT; 92 AA.
AC P50231;
DT 01-OCT-1996 (REL. 34, CREATED)

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DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT 13-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE T-CELL SPECIFIC RANTES PROTEIN PRECURSOR (SIS-DELTA) (SMALL INDUCIBLE
DE CYTOKINE A5).
GN SCYAS.
OS RATTUS NORVEGICUS (RAT).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-LONG EVANS; TISSUE-LUNG;
RA JONES M.L., SHANLEY T.P., MARD P.A.;
RL SUBMITTED (FEB-1994) TO EMBL/GENBANK/DBJ DATA BANKS.
CC -1- FUNCTION: CHEMOTRACTANT FOR BLOOD MONOCYTES, MEMORY T HELPER
CC CELLS AND EOSINOPHILS. CAUSES THE RELEASE OF HISTAMINE FROM
CC BASOPHILS AND ACTIVATES EOSINOPHILS (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: U06436; G459152; -.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; T-CELL; SIGNAL; INFLAMMATORY RESPONSE.
FT SIGNAL 1 24
FT CHAIN 25 92 POTENTIAL.
FT DISULFID 34 58 T-CELL SPECIFIC RANTES PROTEIN.
FT DISULFID 35 74 BY SIMILARITY.
SQ SEQUENCE 92 AA; 10170 MW; 9F897698 CRC32;

Query Match 78.7%; Score 74; DB 1; Length 92;
Best Local Similarity 58.3%; Pred. No. 1.75e-04;
Matches 7; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Db 72 QVCANPEKRWQ 83
:|:|:|:|
QY 1 EICADPSQKWQ 12

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Search completed: Thu Apr 1 07:36:30 1999
Job time : 9 secs.

W O R L D
(TM)

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Mpsrch_pp protein - protein database search, using Smith-Waterman algorithm
Run on: Thu Apr 1 07:36:48 1999; MasPar time 4.96 Seconds
133.528 Million cell updates/sec
Tabular output not generated.

Title: >US-08-927-939-11
Description: (1-12) from US08927939.pep
Perfect Score: 94
Sequence: 1 EICADPSQKWVQ 12

Scoring table:
Gap 15
PAM 150

Searched: 180763 seqs, 55169189 residues

Post-processing: Minimum Match 0%
Listing first 100 summaries

Database:

sptrembl8
1:sp_archaea 2:sp_bacteria 3:sp_fungi 4:sp_human
5:sp_invertebrate 6:sp_mammal 7:sp_mhc 8:sp_organelle
9:sp_phase 10:sp_plant 11:sp_rodent 12:sp_unclassified
13:sp_vertebrate 14:sp_virus

Statistics: Mean 25.153; Variance 33.783; scale 0.745

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description	Pred. No.	
1	77	81.9	80	4	014745	LD78 ALPHA BETA PRECUR	1.68e-04
2	73	77.7	97	13	057411	LYMPHOTACTIN PRECURSOR	1.31e-03
3	73	77.7	395	11	035188	NEUROTACTIN.	1.31e-03
4	73	77.7	395	11	035933	FRACTALAKTINE.	1.31e-03
5	72	76.6	95	14	088430	ORF K6.	2.18e-03
6	70	74.5	92	11	098430	CC CHEMOKINE ABCD-1.	5.93e-03
7	70	74.5	120	4	015467	IL-10-INDUCIBLE CHEMOK	5.93e-03
8	69	73.4	119	4	000175	MP1F-2.	9.74e-03
9	68	72.3	91	4	043646	RANTES PRECURSOR.	1.60e-02
10	68	72.3	97	11	089093	CC CHEMOKINE ST38 PREC	1.60e-02
11	68	72.3	134	4	000585	BETA CHEMOKINE EXODUS-	1.60e-02
12	67	71.3	97	6	062812	INTERLEUKIN-8 (FRAGMEN	2.60e-02
13	66	70.2	133	11	009002	SMALL INDUCIBLE CYTOKI	4.23e-02
14	66	70.2	133	11	009006	BETA CHEMOKINE EXODUS-	4.23e-02
15	64	68.1	95	4	099664	CHEMOKINE EXODUS.	1.10e-01
16	64	68.1	96	11	P97884	CC CHEMOKINE EXODUS.	1.10e-01
17	62	66.0	109	11	005038	B LYMPHOCYTE CHEMOTACT	2.84e-01
18	61	64.9	93	4	000626	MACROPHAGE-DERIVED CHE	4.52e-01
19	61	64.9	101	13	093238	CC CHEMOKINE-1.	4.52e-01
20	61	64.9	552	5	046178	RADIAL SPOKEHEAD.	4.52e-01

21	59	62.8	203	14	067634	ECO Q PROTEIN (FRAGMENT	1.13e+00
22	59	62.8	397	4	P78423	CX3C CHEMOKINE PRECURS	1.13e+00
23	58	61.7	104	13	079312	K60 PROTEIN PRECURSOR.	1.78e+00
24	58	61.7	108	11	070460	EBI-1 LIGAND CHEMOKINE	1.78e+00
25	58	61.7	109	4	043927	CXC CHEMOKINE PRECURSO	1.78e+00
26	57	60.6	307	10	065737	BETA-GALACTOSIDASE (EC	2.78e+00
27	57	60.6	730	10	065736	BETA-GALACTOSIDASE (EC	2.78e+00
28	57	60.6	859	14	Q97013	BETA-GALACTOSIDASE (EC	2.78e+00
29	56	59.6	94	14	Q98157	ENVELOPE GLYCOPROTEIN	4.33e+00
30	56	59.6	724	10	081100	BETA-GALACTOSIDASE (EC	4.33e+00
31	56	59.6	760	3	099126	CHITIN SYNTHETASE I.	4.33e+00
32	55	58.5	852	14	Q73303	ENVELOPE GLYCOPROTEIN.	6.70e+00
33	54	57.4	95	2	P78080	ATP BINDING PROTEIN (F	1.03e+01
34	54	57.4	108	2	Q50686	INSERTION ELEMENT IS61	1.03e+01
35	54	57.4	117	10	042317	BETA GALACTOSIDASE /FR	1.03e+01
36	54	57.4	187	2	083516	HYPOTHETICAL 21.4 KD P	1.03e+01
37	54	57.4	629	5	P91819	RNA POLYMERASE II LANG	1.03e+01
38	54	57.4	822	4	060287	KIA0539 PROTEIN	1.03e+01
39	54	57.4	852	10	Q23243	BETA-GALACTOSIDASE.	1.03e+01
40	54	57.4	853	10	Q42150	BETA-GALACTOSIDASE LTK	1.03e+01
41	54	57.4	1825	5	061210	H19M22.1 PROTEIN (FRAG	1.03e+01
42	53	56.4	101	13	093442	LFCA-1 PROTEIN PRECURS	1.58e+01
43	53	56.4	257	11	088827	PLASMA CELL MEMBRANE G	1.58e+01
44	53	56.4	341	2	P72894	HYPOTHETICAL 37.4 KD P	1.58e+01
45	53	56.4	367	5	Q17575	COL16.9.	1.58e+01
46	53	56.4	424	2	Q48859	DNA-BINDING PROTEIN.	1.58e+01
47	53	56.4	707	10	065761	BETA-GALACTOSIDASE (EC	1.58e+01
48	53	56.4	1053	2	084834	RIBONUCLEOSIDE REDUCTA	1.58e+01
49	53	56.4	1224	5	P91309	CODED FOR BY C. ELEGAN	1.58e+01
50	52	55.3	146	14	084738	TYPE 14 (HRV14), COMPL	2.41e+01
51	52	55.3	146	14	084738	14 (HRV-14) RNA SEQUEN	2.41e+01
52	52	55.3	332	1	028318	PYRVATE FORMATE-LYASE	2.41e+01
53	52	55.3	723	10	082670	BETA-GALACTOSIDASE /BC	2.41e+01
54	51	54.3	40	14	Q71971	PATIENT 3799(12-88), C	3.64e+01
55	51	54.3	40	14	Q71990	PATIENT 3799(12-88), C	3.64e+01
56	51	54.3	40	14	Q72003	PATIENT 3799(9-93), CL	3.64e+01
57	51	54.3	96	13	Q90825	CYTOKINE.	3.64e+01
58	51	54.3	142	10	064729	POTATIVE NUCLEIC ACID	3.64e+01
59	51	54.3	248	10	081404	1-AMINOCYCLOPROPANE-1-	3.64e+01
60	51	54.3	253	2	053582	HYPOTHETICAL PROTEIN (3.64e+01
61	51	54.3	306	5	023084	COSMID ZC8.	3.64e+01
62	51	54.3	319	4	043497	T-TYPE CALCIUM CHANNEL	3.64e+01
63	51	54.3	393	5	Q45686	K1122.2.	3.64e+01
64	51	54.3	399	14	Q68409	ORF UL154.	3.64e+01
65	51	54.3	466	10	082719	ACC SYNTHASE (EC 4.4.1	3.64e+01
66	51	54.3	491	14	041622	ENVELOPE GLYCOPROTEIN	3.64e+01
67	51	54.3	491	10	043747	1-AMINOCYCLOPROPANE-1-	3.64e+01
68	51	54.3	497	10	042610	1-AMINOCYCLOPROPANE-1-	3.64e+01
69	51	54.3	667	2	Q44062	AMYLASE.	3.64e+01
70	51	54.3	847	14	P88525	ENVELOPE GLYCOPROTEIN	3.64e+01
71	51	54.3	852	14	Q92761	ENVELOPE GLYCOPROTEIN.	3.64e+01
72	51	54.3	856	14	P88523	ENVELOPE GLYCOPROTEIN	3.64e+01
73	51	54.3	1014	5	Q26152	V-SERA 2.	3.64e+01
74	51	54.3	2286	11	Q26152	LOW VOLTAGE-ACTIVATED,	3.64e+01
75	51	54.3	6875	6	Q28733	TITIN (FRAGMENT).	3.64e+01
76	51	54.3	26926	4	Q10466	TITIN, HEART ISOFORM N	3.64e+01
77	50	53.2	145	2	P74671	HYPOTHETICAL 16.6 KD P	5.48e+01
78	50	53.2	186	5	045847	T27C5.3.	5.48e+01
79	50	53.2	224	5	045846	T27C5.2.	5.48e+01
80	50	53.2	252	14	P89687	VIF PROTEIN.	5.48e+01
81	50	53.2	348	3	Q74739	CONSERVED HYPOTHETICAL.	5.48e+01
82	50	53.2	350	3	Q06151	CHROMOSOME XII COSMID	5.48e+01
83	50	53.2	375	2	Q44050	CARBOXYLIC ESTER HYDRO	5.48e+01
84	50	53.2	383	5	077102	PROHENOX. OXIDASE ACTI	5.48e+01
85	50	53.2	397	3	Q12123	03625P.	5.48e+01
86	50	53.2	419	11	Q63629	CENPAURIN ALPHA.	5.48e+01
87	50	53.2	515	14	Q74304	ENVELOPE GLYCOPROTEIN	5.48e+01
88	50	53.2	529	2	Q06394	HYPOTHETICAL 57.1 KD P	5.48e+01
89	50	53.2	594	2	Q24970	VARIANT-SPECIFIC SURFA	5.48e+01
90	50	53.2	610	14	Q84595	SIMILAR TO PRCV-1 ORF	5.48e+01
91	50	53.2	627	5	P91874	HEAT SHOCK PROTEIN 70.	5.48e+01
92	50	53.2	804	5	P91199	SIMILARITY TO C2 DOMAI	5.48e+01
93	50	53.2	841	5	Q24032	CORSCREW PROTEIN Y122	5.48e+01

94 50 53.2 856 14 041564 ENVELOPE GLYCOPROTEIN. 5.48e+01
95 50 53.2 860 14 093091 ENVELOPE GLYCOPROTEIN. 5.48e+01
96 50 53.2 982 5 093290 HYPOTHETICAL PROTEIN C 5.48e+01
97 50 53.2 1396 5 P90865 T24B8.7 PROTEIN. 5.48e+01
98 50 53.2 1817 5 019931 COSMID F31D5. 5.48e+01
99 49 52.1 40 14 071888 PATIENT 3799(9-93), CL 8.20e+01
100 49 52.1 852 14 041885 ENVELOPE GLYCOPROTEIN. 8.20e+01

ALIGNMENTS

RESULT 1
ID 014745 PRELIMINARY; PRT; 80 AA.
AC 014745.
DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
DE LD78 ALPHA BETA PRECURSOR (FRAGMENT).
US HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-BRAIN;
RA ISHIZUKA K., IGATA-YI R., NARUSE K., NAKASHIMA H., OHUCHI K.,
RA KATSURAGI S., KIN Y., OHMOTO Y., NOMIYAMA H., IIO M., MIURA R.,
RA MIYAKAWA T.;
RL SUBMITTED (AUG-1995) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; D63785; G961440; -
DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
DR PFAM; PF00048; 118; 1.
KM SIGNAL.
FT NON_TER 1 1
FT SIGNAL <1 16 POTENTIAL.
FT CHAIN 17 >80 LD78 ALPHA BETA.
FT NON_TER 80 80
SQ SEQUENCE 80 AA; 8857 MW; 3F87F1C6 CRC32;

Query Match 81.9%; Score 77; DB 4; Length 80;
Best Local Similarity 66.7%; Pred. No. 1.68e-04;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 65 OVCADPSEKWKVQ 76
Qy 1 EICADPSOKRWQ 12

RESULT 2
ID 057411 PRELIMINARY; PRT; 97 AA.
AC 057411.
DT 01-JUN-1998 (TREMBLREL. 06, CREATED)
DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
DE LYMPHOTACTIN PRECURSOR.
OS GALIUS GALLUS (CHICKEN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; ARCHOSAURIA; AVES;
OC NEOGNATHA; GALLIFORMES; PHASIANIDAE; PHASIANINAE; GALLUS.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-SPLEEN;
RA ROSSI D.L., BAZAN J.F., ZLOTNIK A.;
RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; AF006742; G2837882; -
KM SIGNAL.
FT SIGNAL 1 24 POTENTIAL.
FT CHAIN 25 97 LYMPHOTACTIN.
SQ SEQUENCE 97 AA; 11131 MW; 3290101C CRC32;

Query Match 77.7%; Score 73; DB 13; Length 97;
Best Local Similarity 72.7%; Pred. No. 1.31e-03;
Matches 8; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Db 72 ICVHPEOKRWQ 82

Qy 2 ICADPSOKRWQ 12

RESULT 3
ID 035188 PRELIMINARY; PRT; 395 AA.
AC 035188.
DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DE NEUTROTACTIN.
GN SCYD1.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCIROGNATHI; MORIDAE; MORINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE; 97320499.
RA PAN Y., CLARE L., HONG Z., DOLICH S., DEEDS J., GONZALO J., VATH J.,
RA GOSSEIN M., MA J., DUSSAULT B., WOLFE B., ALPERIN A., CULPEPPER J.,
RA GUTIERREZ-RAMOS J.C., GEARING D.;
RT "Neurotactin, a membrane-anchored chemokine upregulated in brain
inflammation."
RL NATURE 387:611-617(1997).
DR EMBL; AF010586; G2317698; -
DR MGI; MGI:1097153; SCYD1.
DR PFAM; PF00048; 118; 1.
SQ SEQUENCE 395 AA; 42098 MW; E3CD0612 CRC32;

Query Match 77.7%; Score 73; DB 11; Length 395;
Best Local Similarity 72.7%; Pred. No. 1.31e-03;
Matches 8; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 73 FCADPKKRWQ 83
Qy 2 ICADPSOKRWQ 12

RESULT 4
ID 035933 PRELIMINARY; PRT; 395 AA.
AC 035933.
DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DE FRACTALINE.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCIROGNATHI; MORIDAE; MORINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-BALB/C; TISSUE-BRAIN;
RA ROSSI D., HARDIAN G., COPELAND N., GILBERT D.J., JENKINS N.,
RA ZLOTNIK A., BAZAN J.F.;
RL SUBMITTED (MAR-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; U92565; G2459677; -
DR PFAM; PF00048; 118; 1.
SQ SEQUENCE 395 AA; 42040 MW; 3997A113 CRC32;

Query Match 77.7%; Score 73; DB 11; Length 395;
Best Local Similarity 72.7%; Pred. No. 1.31e-03;
Matches 8; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 73 FCADPKKRWQ 83
Qy 2 ICADPSOKRWQ 12

RESULT 5
ID 098158 PRELIMINARY; PRT; 95 AA.
AC 098158; 012569;
DT 01-FEB-1997 (TREMBLREL. 02, CREATED)
DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)


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DE ORF K6.
OC KAPOSI'S SARCOMA-ASSOCIATED HERPESVIRUS.
OS VIRUSES; DSDNA VIRUSES, NO RNA STAGE; HERPESVIRIDAE;
OC GAMMAHERPESVIRINAE; RHADINOVIRUS.
RN [1]
RN SEQUENCE FROM N.A.
RX MEDLINE: 97094384.
RA MOORE P.S., BASHOFF C., WEISS R.A., CHANG Y.;
RT "Molecular mimicry of human cytokine and cytokine response pathway
genes by KSHV."
RL SCIENCE 274:1739-1744(1996).
RN [2]
RN SEQUENCE FROM N.A.
RX MEDLINE: 97121480.
RA RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
RA PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
RT "Nucleotide sequence of the Kaposi sarcoma-associated herpesvirus
(HHV8)."
RL PROC. NATL. ACAD. SCI. U.S.A. 93:14862-14867(1996).
RN [3]
RN SEQUENCE FROM N.A.
RA RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
RA PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
RL SUBMITTED (OCT-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [4]
RN SEQUENCE FROM N.A.
RA NICHOLAS J., RUVOLO V.R., BURNS W.H., SANDFORD G., WAN X., CIUFFO D.,
RA HENDRICKSON S., GUO H.G., HAYWARD G.S., REITZ M.S.;
RL SUBMITTED (NOV-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [5]
RN SEQUENCE FROM N.A.
RA RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
RA PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [6]
RN SEQUENCE FROM N.A.
RX MEDLINE: 97296220.
RA NEIPEL F., ALBRECHT J.C., FLECKENSTEIN B.;
RT "Cell-homologous genes in the Kaposi's sarcoma-associated rhadinovirus
human herpesvirus 8: determinants of its pathogenicity?";
RL J. VIROL. 71:4187-4192(1997).
RN [7]
RN SEQUENCE FROM N.A.
RA SUN R., LIN S.-F., MILLER G.;
RL SUBMITTED (SEP-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: U75698; G171826; -
DR EMBL: U74585; G1658373; -
DR EMBL: U93872; G2246546; -
DR EMBL: U71366; G3551763; -
DR PFM: PF00048; 118; 1.
KW HYPOTHETICAL PROTEIN.
SQ SEQUENCE 95 AA; 10485 MW; 5283348D CRC32;

Query Match 76.6%; Score 72; DB 14; Length 95;
Best Local Similarity 66.7%; Pred. No. 2,18e-03;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 74 QICADPSKMWV 85
QY 1 EICADPSOKWVQ 12

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RP SEQUENCE FROM N.A.
RC TISSUE-LIVER.
RX MEDLINE: 98353531.
RA SCHANIEL C., PARDALI E., SALTUSTO F., SPELETAS M., RUDEL C.,
RA SHIMIZU T., SEIDL T., ANDERSSON J., MELCHERS F., ROLINK A.G.,
RA SIBERAS P.;
RT "Activated murine B lymphocytes and dendritic cells produce a novel
RT CC chemokine which acts selectively on activated T cells."
RL J. EXP. MED. 188:451-463(1998).
DR EMBL: AF052505; G3378116; -
SQ SEQUENCE 92 AA; 10302 MW; BC7219A0 CRC32;

Query Match 74.5%; Score 70; DB 11; Length 92;
Best Local Similarity 72.7%; Pred. No. 5,93e-03;
Matches 8; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 74 DICADPROVW 84
QY 1 EICADPSOKWV 11

RESULT 7
ID 015467 PRELIMINARY; PRT; 120 AA.
AC 015467;
DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DE 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE IL-10-INDUCIBLE CHEMOKINE.
GN ILINCK OR SCYAL6.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RN SEQUENCE FROM N.A.
RA HEDRICK J.A., HELMS A., GORMAN D., ZLOTNIK A.;
RL SUBMITTED (NOV-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]
RN SEQUENCE FROM N.A.
RC TISSUE-LIVER.
RA SHODAI K., HIESHIMA K., FUKUDA S., ITO M., MIURA R., IMAI T.,
RA YOSHIE O., NOMIYAMA H.;
RL BIOCHIM. BIOPHYS. ACTA 0:0-0(1998).
RN [3]
RN SEQUENCE FROM N.A.
RA NOMIYAMA H.;
RT "Structure of a region of 181 kb containing five CC chemokine genes."
RL SUBMITTED (AUG-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [4]
RN SEQUENCE FROM N.A.
RX MEDLINE: 98308096.
RA YOUN B.S., ZHANG S., BROXMEYER H.E., ANTOL K., FRASER M.J. JR.,
RA HANGOC G., KHON B.S.;
RT "Isolation and characterization of LMC, a novel lymphocyte and
RT monocyte chemoattractant human CC chemokine, with myelosuppressive
RT activity."
RL BIOCHEM. BIOPHYS. RES. COMMUN. 247:217-222(1998).
DR EMBL: U91746; G2581781; -
DR EMBL: AB007454; D1024963; -
DR EMBL: AF088219; G3719365; -
DR EMBL: AF055467; G3395776; -
DR PFM: PF00048; 118; 1.
KW SIGNAL.
SQ SEQUENCE 120 AA; 13600 MW; A079DF66 CRC32;

Query Match 74.5%; Score 70; DB 4; Length 120;
Best Local Similarity 50.0%; Pred. No. 5,93e-03;
Matches 6; Conservative 5; Mismatches 1; Indels 0; Gaps 0;

Db 74 EVCNPNDDWVQ 85
QY 1 EICADPSOKWVQ 12

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Oy 1 EICADPSQKWQ 12

RESULT 13
ID 009002 PRELIMINARY; PRT; 97 AA.
AC 062812
DT 01-AUG-1998 (TREMREL. 07, CREATED)
DT 01-AUG-1998 (TREMREL. 07, LAST SEQUENCE UPDATE)
DT 01-AUG-1998 (TREMREL. 07, LAST SEQUENCE UPDATE)
DE INTERLEUKIN-8 (FRAGMENT).
GN IL-8.
OS EQUUS CABALLUS (HORSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
SCUROGNATHI; MORIDAE; MURINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-BRONCHOALVEOLAR TISSUE;
RA FRANCHINI M.;
RL SUBMITTED (APR-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; AF062377; G3126973; -.
FT NON_TER 97
SQ SEQUENCE 97 AA; 10742 MW; 00396FBF CRC32;

Query Match 71.3%; Score 67; DB 6; Length 97;
Best Local Similarity 58.3%; Pred. No. 2.60e-02;
Matches 7; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

Db 75 EVCNPHRTKWQ 86
Oy 1 EICADPSQKWQ 12

RESULT 13
ID 009002 PRELIMINARY; PRT; 133 AA.
AC 009002;
DT 01-JUL-1997 (TREMREL. 04, CREATED)
DT 01-JUL-1997 (TREMREL. 04, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMREL. 08, LAST ANNOTATION UPDATE)
DE SMALL INDUCIBLE CYTOKINE A21 (TCA4).
GN SCYA21.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
SCUROGNATHI; MORIDAE; MURINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-THYMUS;
RA TANABE S., LU Z., LIO Y., QUACKENBUSH E.J., BERMAN M.A.,
RA COLLINS-RACIE L.A., MI S., REILLY C., LO D., JACOBS K.A., DORF M.E.;
RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE; 97400322.
RA HEDRICK J.A., ZLOTNIK A.;
RT "Identification and characterization of a novel beta chemokine
containing six conserved cysteines.";
RL J. IMMUNOL. 159:1589-1593(1997).
RN [3]
RP SEQUENCE FROM N.A.
RA HEDRICK J.A., ZLOTNIK A.;
RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; AF006537; G2209189; -.
DR EMBL; AF001980; G2624927; -.
DR MGD; MGI:1097677; SCYA21.
DR PFAM; PF00048; 118; 1.
SQ SEQUENCE 133 AA; 14558 MW; C0532523 CRC32;

Query Match 70.2%; Score 66; DB 11; Length 133;
Best Local Similarity 58.3%; Pred. No. 4.23e-02;
Matches 7; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Db 73 EICANPEGWQ 84
Oy 1 EICADPSQKWQ 12

RESULT 14
ID 009006 PRELIMINARY; PRT; 133 AA.
AC 009006;
DT 01-JUL-1997 (TREMREL. 04, CREATED)
DT 01-AUG-1998 (TREMREL. 07, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMREL. 08, LAST ANNOTATION UPDATE)
DE BETA CHEMOKINE EXODUS-2.
GN SCYA21.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
SCUROGNATHI; MORIDAE; MURINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-TOTAL FETUS;
RX MEDLINE; 97444139.
RA HROMAS R., KIM C.H., KLEMSZ M., KRATHWOHL M., FIFE K., COOPER S.,
RA SCHNITZLEIN-BICK C., BROXMEYER H.E.;
RT "Isolation and characterization of Exodus-2, a novel C-C chemokine
with a unique 37-amino acid carboxyl-terminal extension.";
RL J. IMMUNOL. 159:2554-2558(1997).
RN [2]
RP SEQUENCE FROM N.A.
RC TISSUE-TOTAL FETUS;
RA HROMAS R.A.;
RL SUBMITTED (JUN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; U88322; G3169697; -.
DR MGD; MGI:1097677; SCYA21.
DR PFAM; PF00048; 118; 1.
SQ SEQUENCE 133 AA; 14600 MW; B345E22 CRC32;

Query Match 70.2%; Score 66; DB 11; Length 133;
Best Local Similarity 58.3%; Pred. No. 4.23e-02;
Matches 7; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Db 73 EICANPEGWQ 84
Oy 1 EICADPSQKWQ 12

RESULT 15
ID 009664 PRELIMINARY; PRT; 95 AA.
AC 009664;
DT 01-MAY-1997 (TREMREL. 03, CREATED)
DT 01-MAY-1997 (TREMREL. 03, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMREL. 08, LAST ANNOTATION UPDATE)
DE CHEMOKINE EXODUS.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-PANCREAS;
RX MEDLINE; 97275143.
RA HROMAS R., GRAY P.W., CHANTRY D., GODISKA R., KRATHWOHL M., FIFE K.,
RA BELL G.I., TAKEDA J., ARONICA S., GORDON M., COOPER S., BROXMEYER H.E.,
RA KLEMSZ M.J.;
RT "Cloning and characterization of exodus, a novel beta-chemokine.";
RL BLOOD 89:3315-3322(1997).
DR EMBL; U64197; G178717; -.
DR PROSITE; PS00472; SMALL_CYTOKINES.CC; 1.
DR PFAM; PF00048; 118; 1.
SQ SEQUENCE 95 AA; 10691 MW; 1526B4C0 CRC32;

Query Match 68.1%; Score 64; DB 4; Length 95;
Best Local Similarity 60.0%; Pred. No. 1.10e-01;
Matches 6; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 72 VCANPKOTWV 81
Oy 2 ICADPSQKWV 11

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RESULT 16
ID P97884 PRELIMINARY; PRT; 96 AA.
AC P97884;
DT 01-MAY-1997 (TREMBLREL. 03, CREATED)
DT 01-MAY-1997 (TREMBLREL. 03, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE CC CHEMOKINE EXODUS.
OS RATTUS NORVEGICUS (RAV).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCIUROGNATHI; MURIDAE; MURINAE; RATTUS.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=SPRAGUE-DAWLEY.
RA KELLER G.S., MACIEJEWSKI-LENOIR D., LEE E.D., MAKI R.A.;
RL SUBMITTED (FEB-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]
RP SEQUENCE FROM N.A.
RC STRAIN=FISHER 344; TISSUE=BRIN;
RA LESSLAUER W.;
RA "A novel rat CC chemokine, identified by targeted differential
display, is upregulated in brain inflammation.";
RL J. NEUROIMMUNOL. 0:0-0(1998).
DR EMBL: U90447; G1899246; -.
DR EMBL: AF053312; G3551817; -.
DR PFAM: PF00048; 118; 1.
KW SIGNAL.
SQ SEQUENCE 96 AA; 10875 MW; 3FC09DD8 CRC32;

Query Match 68.1%; Score 64; DB 11; Length 96;
Best Local Similarity 70.0%; Pred. No. 1.10e-01;
Matches 7; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 73 VCAADPKQIYW 82
:|||||
OY 2 ICADPSQKWV 11

RESULT 17
ID 055038 PRELIMINARY; PRT; 109 AA.
AC 055038;
DT 01-JUN-1998 (TREMBLREL. 06, CREATED)
DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE B LYMPHOCYTE CHEMOATTRACTANT BLC.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCIUROGNATHI; MURIDAE; MURINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=C57BL/6J;
RX MEDLINE: 98146056.
RA GUNN M.D., NGO V.N., ANSEL K.M., EKLAND E.H., CYSTER J.G.,
RA WILLIAMS L.T.;
RA "A B-cell-homing chemokine made in lymphoid follicles activates
Burkitt's lymphoma receptor-1.";
RL NATURE 391:799-803(1998).
DR EMBL: AF044196; G2911374; -.
DR SUBMITTED (JAN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
SQ SEQUENCE 109 AA; 11927 MW; BB6CCC22 CRC32;

Query Match 66.0%; Score 62; DB 11; Length 109;
Best Local Similarity 54.5%; Pred. No. 2.84e-01;
Matches 6; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

Db 74 ICVNPRAKWLQ 84
||:|:|
OY 2 ICADPSQKWV 12

RESULT 18
ID 000626 PRELIMINARY; PRT; 93 AA.
AC 000626;
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DT 01-JUL-1997 (TREMBLREL. 04, CREATED)
DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE MACROPHAGE-DERIVED CHEMOKINE PRECURSOR.
GN MDC OR A-1525.1.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RA GODISKA R., CHENTY D., RAPORT C.J., SOZZANI S., ALLAVENA P.,
RA MANTOVANI A., GRAY P.W.;
RL J. EXP. MED. 185:0-0(0).
RN [2]
RP SEQUENCE FROM N.A.
RA CHANG M.S., MCINCH J., ELIAS III C., MANTHEY C.L., GROSSHANS D.,
RA MENG T., BOONE T., ANDREW D.P.;
RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [3]
RP SEQUENCE FROM N.A.
RA ADAMS M.D., LOFTUS B.J., ZHOU L., CROSBY M., FUHRMANN J., MASON T.M.,
RA BRANON R., KIM U.J., KERLAVAGE A.R., VENTER J.C.;
RT "Homo sapiens Chromosome 16 BAC clone C1987SK-A-1525.";
RL SUBMITTED (JUN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: U83171; G1931581; -.
DR EMBL: U83239; G2062425; -.
DR EMBL: AC004382; G3252820; -.
DR PFAM: PF00048; 118; 1.
KW SIGNAL.
FT SIGNAL. 1 24 POTENTIAL.
FT CHAIN 25 93 MACROPHAGE-DERIVED CHEMOKINE.
SQ SEQUENCE 93 AA; 10580 MW; 65EA63D2 CRC32;

Query Match 64.9%; Score 61; DB 4; Length 93;
Best Local Similarity 72.7%; Pred. No. 4.52e-01;
Matches 8; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Db 74 EICADPRVPMV 84
|||||
OY 1 EICADPSQKWV 11

RESULT 19
ID 093238 PRELIMINARY; PRT; 101 AA.
AC 093238;
DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE CC CHEMOKINE-1.
OS CYPRINUS CARPIO (COMMON CARP).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; ACTINOPTERYGII; NEOPTERYGII;
OC TELEOSTEI; EUTELEOSTEI; OSTARIOPHYSI; CYPRINIFORMES; CYPRINOIDEA;
OC CYPRINIDAE; CYPRININAE; CYPRINUS.
RN [1]
RP SEQUENCE FROM N.A.
RA FUJIKI K., NAKAO M., SHIN D., YANO T.;
RT "cDNA cloning of a carp CC chemokine homologous to mammalian
eotaxins.";
RL SUBMITTED (JAN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: AB010469; D1032417; -.
SQ SEQUENCE 101 AA; 11266 MW; 9CFBD540 CRC32;
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Query Match 64.9%; Score 61; DB 13; Length 101;
Best Local Similarity 54.5%; Pred. No. 4.52e-01;
Matches 6; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Db 72 EFCSDPKLWV 82
||:|:|
OY 1 EICADPSQKWV 11

RESULT 20
ID 046178 PRELIMINARY; PRT; 552 AA.
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AC 046178;
DT 01-JUN-1998 (TREMBLREL. 06, CREATED)
DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE RADIAL, SPOKEHEAD.
OC STRONGYLOCENTROTUS PURPURATUS (PURPLE SEA URCHIN).
OC EUKARYOTA; METAZOA; ECHINODERMATA; ECHINOZOA; ECHINOIDEA; EUECHINOIDEA;
OC ECHINACERA; ECHINOIDA; STRONGYLOCENTROTIDAE; STRONGYLOCENTROTUS.
RN [1]
RX SEQUENCE FROM N.A.
RX MEDLINE: 98119758.
RA GINGRAS D., GAONON C.;
RT "Molecular cloning and characterization of a radial spoke head protein
RT of sea urchin sperm axonemes: Involvement of the protein in the
RT regulation of sperm motility."
RL MOL. BIOL. CELL 9:513-522(1998).
DR EMBL: U73123; G2905895; -.
SO SEQUENCE 552 AA; 62723 MW; 898CFCCC CRC32;

Query Match 64.98; Score 61; DB 5; Length 552;
Best Local Similarity 50.08; Pred. No. 4.52e-01;
Matches 5; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Db 270 VCNPEGPPWV 279
QY 2 ICADPSQKWV 11

RESULT 21
ID 067634 PRELIMINARY; PRT; 203 AA.
AC 067634;
DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE ECO Q PROTEIN (FRAGMENT).
OC GALILD HERPESVIRUS TYPE 1.
OC VIRUSES; DSDNA VIRUSES; NO RNA STAGE; HERPESVIRIDAE;
OC ALPHAHERPESVIRINAE; VARICELLOVIRUS.
RN [1]
RX SEQUENCE FROM N.A.
RX STRAIN-GA;
RX MEDLINE: 96074534.
RA PENG Q., ZENG M., BHUTIAN Z.A., UBUKATA E., TANAKA A., NONOYAMA M.,
RA SHIRAZI Y.;
RT "Isolation and characterization of Marek's disease virus (MDV) cDNAs
RT mapping to the BamHI-12, BamHI-Q2, and BamHI-L fragments of the MDV
RT genome from lymphoblastoid cells transformed and persistently infected
RT with MDV."
RL VIROLOGY 213:590-599(1995).
DR EMBL: U34966; G1185444; -.
DR PFAM: PF00048; 118; 1.
DT NON_TER 1
TT SEQUENCE 203 AA; 23132 MW; 887D04C3 CRC32;

Query Match 62.88; Score 59; DB 14; Length 203;
Best Local Similarity 54.58; Pred. No. 1.13e+00;
Matches 6; Conservative 1; Mismatches 4; Indels 0; Gaps 0;

Db 145 VCVDPPEAPWV 155
QY 2 ICADPSQKWV 12

RESULT 22
ID P78423 PRELIMINARY; PRT; 397 AA.
AC P78423; 000672;
DT 01-MAY-1997 (TREMBLREL. 03, CREATED)
DT 01-MAY-1997 (TREMBLREL. 03, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE CX3C CHEMOKINE PRECURSOR.
GN A-152E5.2.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;

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OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RX SEQUENCE FROM N.A.
RX MEDLINE: 97177111.
RA BAZAN J.F., BACON K.B., HARDIMAN G., WANG W., SOO K., ROSSI D.,
RA GREAVES D.R., ZLOTNIK A., SCHALL T.J.;
RT "A new class of membrane-bound chemokine with a CX3C motif."
RL NATURE 385:640-644(1997).
RN [2]
RX SEQUENCE FROM N.A.
RX ADAMS M.D., LOFTUS B.J., ZHOU L., CROSBY M., FUHRMANN J., MASON T.M.,
RA BRANDON R., KIM U.J., KERLAVAGE A.R., VENTER J.C.;
RT "Homo sapiens chromosome 16 BAC clone C1987SK-A-152E5."
RL SUBMITTED (JUN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: U91835; G1899259; -.
DR EMBL: U84487; G1888523; -.
DR PFAM: AC004382; G3252821; -.
DR PFAM: PF00048; 118; 1.
KW SIGNAL.
FT SIGNAL 1 24 POTENTIAL.
FT CHAIN 25 397 CX3C CHEMOKINE.
SO SEQUENCE 397 AA; 42202 MW; C8093D7D CRC32;

Query Match 62.88; Score 59; DB 4; Length 397;
Best Local Similarity 60.08; Pred. No. 1.13e+00;
Matches 6; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 73 FCADPKRQWV 82
QY 2 ICADPSQKWV 11

RESULT 23
ID 073912 PRELIMINARY; PRT; 104 AA.
AC 073912;
DT 01-AUG-1998 (TREMBLREL. 07, CREATED)
DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
DT 01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
DE K60 PROTEIN PRECURSOR.
GN K60.
OS GALUS GALLUS (CHICKEN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; ARCHOSAURIA; AVES;
OC NEOGNATHAE; GALLIFORMES; PHASIANIDAE; PHASIANINAE; GALLUS.
RN [1]
RX SEQUENCE FROM N.A.
RX TISSUE-MACROPHAGE LIKE;
RX SICK C.;
RL SUBMITTED (AUG-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: Y14971; E1295103; -.
KW SIGNAL.
FT SIGNAL 1 20 POTENTIAL.
FT CHAIN 21 104 K60 PROTEIN.
SO SEQUENCE 104 AA; 11199 MW; 40C2EF8A CRC32;

Query Match 61.78; Score 58; DB 13; Length 104;
Best Local Similarity 54.58; Pred. No. 1.78e+00;
Matches 6; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

Db 75 EVCLDPTAPWV 85
QY 1 EICADPSQKWV 11

RESULT 24
ID 070460 PRELIMINARY; PRT; 108 AA.
AC 070460;
DT 01-AUG-1998 (TREMBLREL. 07, CREATED)
DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
DT 01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
DE EBI-1 LIGAND CHEMOKINE.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCIROGNATHI; MORIDAE; MORINAE; MUS.

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RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=LYMPHOID;
RA NGO V.N., TANG H.L., CYSTER J.G.;
RL J. EXP. MED. 0:0-0(1998).
DR EMBL: AF059208: G3068765; -.
SQ SEQUENCE 108 AA; 11911 MW; E86C4466 CRC32;

Query Match
Best Local Similarity 50.0%; Score 58; DB 11; Length 108;
Matches 6; Conservative 3; Mismatches 3; Indels 0; Gaps 0;

Db 73 QICADPSQKMWQ 84
QY 1 EICADPSQKMWQ 12

RESULT 25
ID 043927; PRELIMINARY; PRT; 109 AA.
AC 043927;
DT 01-JUN-1998 (TREMBLERL. 06, CREATED)
DT 01-JUN-1998 (TREMBLERL. 06, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLERL. 08, LAST ANNOTATION UPDATE)
DE CXC CHEMOKINE PRECURSOR.
GN BCA-1.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
[1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 98130629.
RA LEGIER D.F., LOETSCHER M., STUBER ROOS R., CLARK-LEWIS I.,
RA BAGGIOLOINI M., MOSER B.;
RA "B cell-attracting chemokine 1, a human CXC chemokine expressed in
RT lymphoid tissues, selectively attracts B lymphocytes via BLR1/CXCR5.";
RL J. EXP. MED. 187:655-660(1998).
[2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 98146056.
RA GUNN M.D., NGO V.N., ANSEL K.M., EKLAND E.H., CYSTER J.G.,
RA WILLIAMS L.T.;
RA "A B-cell-homing chemokine made in lymphoid follicles activates
RT Buritt's lymphoma receptor-1.";
RL NATURE 391:795-803(1998).
[3]
RN SEQUENCE FROM N.A.
RP NAPONITANO M., SPINETTI G., GAETANO C., CAPOGROSSI C.M.;
RL SUBMITTED (OCT-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: AJ002211: E1249325; -.
DR EMBL: AF044197: G2911376; -.
DR EMBL: AF029894: G3169814; -.
KW SIGNAL.
FT SIGNAL. 1 22 POTENTIAL.
FT CHAIN 23 109 POTENTIAL.
SQ SEQUENCE 109 AA; 12664 MW; BE5A46BC CRC32;

Query Match
Best Local Similarity 45.5%; Score 58; DB 4; Length 109;
Matches 5; Conservative 2; Mismatches 4; Indels 0; Gaps 0;

Db 75 VCVDPAEWIO 85
QY 2 ICADPSQKMWQ 12

RESULT 26
ID 065737; PRELIMINARY; PRT; 307 AA.
AC 065737;
DT 01-AUG-1998 (TREMBLERL. 07, CREATED)
DT 01-AUG-1998 (TREMBLERL. 07, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLERL. 07, LAST ANNOTATION UPDATE)
DE BETA-GALACTOSIDASE (EC 3.2.1.23) (LACTASE) (FRAGMENT).
OS CICR ARLETINUM (CHICKPEA) (GARBANCO).

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OC EUKARYOTA; VIRIDIPLANTAE; CHAROPHYTA/EMBRYOPHYTA GROUP; EMBRYOPHYTA;
OC TRACHEOPHYTA; EUPHYLOPHYTES; SPERMATOPHYTA; MAGNOLIOPHYTA;
OC EUDICOTYLEDONS; ROSIDAE; FABALES; FABACEAE; PAPILIONOIDEAE; CICR.
[1]
RP SEQUENCE FROM N.A.
RC STRAIN=CV. CASTELLANA; TISSUE=ETIOLATED EPICOTYLS;
RA ESTEBAN R., DOPICO B., LABRADOR E.;
RL SUBMITTED (APR-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
CC -I- CATALYTIC ACTIVITY: HYDROLYSIS OF TERMINAL, NON-REDUCING
CC BETA-D-GALACTOSE RESIDUES IN BETA-D-GALACTOSIDES.
DR EMBL: AJ005043: E1285876; -.
KW HYDROLASE; GLYCOSIDASE.
FT NON_TER 1 1.
SQ SEQUENCE 307 AA; 33486 MW; B1E5B7D CRC32;

Query Match
Best Local Similarity 62.5%; Score 57; DB 10; Length 307;
Matches 5; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Db 266 CGOPTOKW 273
QY 3 CADPSQK 10

RESULT 27
ID 065736; PRELIMINARY; PRT; 730 AA.
AC 065736;
DT 01-AUG-1998 (TREMBLERL. 07, CREATED)
DT 01-NOV-1998 (TREMBLERL. 08, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLERL. 08, LAST ANNOTATION UPDATE)
DE BETA-GALACTOSIDASE (EC 3.2.1.23) (LACTASE).
OS CICR ARLETINUM (CHICKPEA) (GARBANCO).
OC EUKARYOTA; VIRIDIPLANTAE; CHAROPHYTA/EMBRYOPHYTA GROUP; EMBRYOPHYTA;
OC TRACHEOPHYTA; EUPHYLOPHYTES; SPERMATOPHYTA; MAGNOLIOPHYTA;
OC EUDICOTYLEDONS; ROSIDAE; FABALES; FABACEAE; PAPILIONOIDEAE; CICR.
[1]
RP SEQUENCE FROM N.A.
RC STRAIN=CV. CASTELLANA; TISSUE=ETIOLATED EPICOTYLS;
RA ESTEBAN R., DOPICO B., LABRADOR E.;
RL SUBMITTED (SEP-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
CC -I- CATALYTIC ACTIVITY: HYDROLYSIS OF TERMINAL, NON-REDUCING BETA-D-
CC GALACTOSE RESIDUES IN BETA-D-GALACTOSIDES.
CC -I- SIMILARITY: BELONGS TO FAMILY 35 OF GLYCOSYL HYDROLASES.
DR EMBL: AJ005042: E1321550; -.
DR PROSITE: PS01182; GLYCOSYL_HYDROL_F35; 1.
KW HYDROLASE; GLYCOSIDASE.
FT ACT_SITE 187 187 PROTON DONOR (BY SIMILARITY).
SQ SEQUENCE 730 AA; 81300 MW; D1C226FF CRC32;

Query Match
Best Local Similarity 60.6%; Score 57; DB 10; Length 730;
Matches 5; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Db 689 CGOPTOKW 696
QY 3 CADPSQK 10

RESULT 28
ID 097013; PRELIMINARY; PRT; 859 AA.
AC 097013;
DT 01-FEB-1997 (TREMBLERL. 02, CREATED)
DT 01-FEB-1997 (TREMBLERL. 02, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLERL. 08, LAST ANNOTATION UPDATE)
DE ENVELOPE GLYCOPROTEIN (FRAGMENT).
GN ENV.
OS HUMAN IMMUNODEFICIENCY VIRUS TYPE 1 (HIV-1).
OC VIRUSES; RETROID VIRUSES; RETROVIRIDAE; LENTIVIRUS.
[1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 96190564.
RA GAO F., MORRISON S.G., ROBERTSON D.L., THORNTON C.L., CRAIG S.,
RA KARLSSON G., SODROSKI J., MORGAO M., GALVINO-CASTRO B., BRIESEN H.,

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RA BEDDOWS S., WEBER J., SHARP P.M., SHAW G.M., HAHN B.H.;
 RT "Molecular cloning and analysis of functional envelope genes from
 RT human immunodeficiency virus type 1 sequence subtypes A through G. The
 RT WHO and NIAID Networks for HIV Isolation and Characterization".
 RL J. VIROL. 70:1651-1657(1996).
 RN [2]
 RP SEQUENCE FROM N.A.
 RA ALLEN E.E.;
 RL SUBMITTED (MAY-1995) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: U27443; G1495977; -
 DR PFAM: PF00516; GP120; 1.
 DR PFAM: PF00517; GP41; 1.
 KW ENVELOPE PROTEIN.
 FT NON_TER 1
 FT SEQUENCE 859 AA; 97274 MW; 15339DB3 CRC32;
 Query Match 60.6%; Score 57; DB 14; Length 859;
 Best Local Similarity 50.0%; Pred. No. 2.78e+00;
 Matches 5; Conservative 3; Mismatches 2; Indels 0; Gaps 0;
 Db 31 IC5AAEEKV 40
 ID 11: : : : :
 QY 2 ICADPSOKW 11
 RESULT 29
 ID 098157; PRELIMINARY; PRT; 94 AA.
 AC 098157;
 DT 01-FEB-1997 (TREMBLREL. 02, CREATED)
 DT 01-FEB-1997 (TREMBLREL. 02, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE WHIP-1B.
 OS KAPOSI'S SARCOMA-ASSOCIATED HERPES-LIKE VIRUS,
 OS AND KAPOSI'S SARCOMA-ASSOCIATED HERPESVIRUS,
 OC VIRUSES; DSDNA VIRUSES, NO RNA STAGE; HERPESVIRIDAE;
 OC GAMMAHERPESVIRINAE; RHADINOVIRUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA NICHOLAS J., RUVOLO V.R., BURNS W.H., SANFORD G., WAN X., CIURO D.,
 RA HENDRICKSON S., GUO H.G., HAYWARD G.S., REITZ M.S.;
 RL SUBMITTED (SEP-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 97094384.
 RA MOORE P.S., BASIOFF C., WEISS R.A., CHANG Y.;
 RT "Molecular mimicry of human cytokine and cytokine response pathway
 RT genes by KSHV".
 RL SCIENCE 274:1739-1744(1996).
 RN [3]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 97121480.
 RA RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
 RA PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
 RT "Nucleotide sequence of the kaposi sarcoma-associated herpesvirus
 RT (HHV8)".
 RL PROC. NATL. ACAD. SCI. U.S.A. 93:14862-14867(1996).
 RN [4]
 RP SEQUENCE FROM N.A.
 RA RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
 RA PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
 RL SUBMITTED (OCT-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [5]
 RP SEQUENCE FROM N.A.
 RA RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
 RA PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
 RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [6]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 97296220.
 RA NEIPEL F., ALBRECHT J.C., FLECKENSTEIN B.;
 RT "Cell-homologous genes in the Kaposi's sarcoma-associated rhadinovirus
 RT human herpesvirus 8: determinants of its pathogenicity?";
 RL J. VIROL. 71:4187-4192(1997).

RN [7]
 RP SEQUENCE FROM N.A.
 RA SUN R., LIN S.-F., MILLER G.;
 RL SUBMITTED (SEP-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: U67775; G1562496; -
 DR EMBL: U75698; G1718264; -
 DR EMBL: U93872; G246517; -
 DR EMBL: U71365; G3551760; -
 DR PFAM: PF00048; 118; 1.
 KW HYPOTHETICAL PROTEIN.
 SO SEQUENCE 94 AA; 10486 MW; 91312200 CRC32;
 Query Match 59.6%; Score 56; DB 14; Length 94;
 Best Local Similarity 54.5%; Pred. No. 4.33e+00;
 Matches 6; Conservative 2; Mismatches 3; Indels 0; Gaps 0;
 Db 72 QVCADKSKDW 82
 ID 11: : : : :
 QY 1 EICADPSOKW 11
 RESULT 30
 ID 081100; PRELIMINARY; PRT; 724 AA.
 AC 081100;
 DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE BETA-GALACTOSIDASE (EC 3.2.1.23) (LACTASE) PRECURSOR (EC 3.2.1.23)
 DE (LACTASE).
 GN BGL4.
 OS LYCOPERSICON ESCULENTUM (TOMATO).
 OC EUDAROTA: VIRIDIPHYTES: CHAROPHYTA/EMBRYOPHYTA GROUP: EMBRYOPHYTA;
 OC TRACHEOPHYTA: EUPHYLOPHYTES; SPERMATOPHYTA: MAGNOLIOPHYTA;
 OC EUDICOTYLEDONS; ASTERIDAE; SOLANACEAE; SOLANALES; SOLANALES; SOLANACEAE; SOLANACEAE;
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-ROUTERS; TISSUE-TOMATO FRUIT;
 RX MEDLINE: 98289087.
 RA SMITH D.L., STARRETT D.A., GROSS K.C.;
 RT "A gene coding for tomato fruit beta-galactosidase II is expressed
 RT during fruit ripening. Cloning, characterization, and expression
 RT pattern".
 RL PLANT PHYSIOL. 117:417-423(1998).
 CC -1- CATALYTIC ACTIVITY: HYDROLYSIS OF TERMINAL, NON-REDUCING BETA-D-
 CC GALACTOSE RESIDUES IN BETA-D-GALACTOSIDES.
 CC -1- SIMILARITY: BELONGS TO FAMILY 35 OF GLYCOSYL HYDROLASES.
 DR EMBL: AF020390; G3299896; -
 DR PROSITE: PS01182; GLYCOSYL_HYDROL_F35; 1.
 DR TRANSIT PEPTIDE; HYDROLASE.
 FT ACT_SITE 181 181
 FT TRANSIT 1 23
 FT ACT_SITE 181 181
 SO SEQUENCE 724 AA; 80513 MW; 4BC4090F CRC32;
 Query Match 59.6%; Score 56; DB 10; Length 724;
 Best Local Similarity 62.5%; Pred. No. 4.33e+00;
 Matches 5; Conservative 3; Mismatches 0; Indels 0; Gaps 0;
 Db 682 CGOPSORW 689
 ID 11: : : : :
 QY 3 CADPSOKW 10

Search completed: Thu Apr 1 07:37:27 1999
 Job time : 39 secs.

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MIRAGE (TM)

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Msrch_pp protein - protein database search, using Smith-Waterman algorithm

Run on: Thu Apr 1 07:40:52 1999; MasPar time 2.82 Seconds

Tabular output not generated. 68.919 Million cell updates/sec

Title: >US-08-927-939-12

Description: (1-12) from US08927939.pep

Perfect Score: 92

Sequence: 1 EICADPSEWVQ 12

Scoring table: PAM 150

Gap 15

Searched: 131922 seqs, 16180660 residues

Post-processing: Minimum Match 0%

Listing first 100 summaries

Database: a-geneseg32
1:part1 2:part2 3:part3 4:part4 5:part5 6:part6 7:part7
8:part8 9:part9 10:part10 11:part11 12:part12 13:part13
14:part14 15:part15 16:part16 17:part17 18:part18
19:part19 20:part20 21:part21 22:part22 23:part23
24:part24 25:part25 26:part26 27:part27 28:part28
29:part29

Statistics: Mean 18.207; Variance 69.464; scale 0.262

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description	Pred. No.	
1	90	97.8	69	7	R38940	LD78 Phe28>Glu, Gln48	7.79e-02
2	90	97.8	69	7	R38926	LD78 Gln48>Glu.	7.79e-02
3	87	94.6	63	7	R38974	NI-6 LD78 Pro7>Ser.	1.51e-01
4	87	94.6	64	7	R39081	LD78 C65-69.	1.51e-01
5	87	94.6	66	7	R38948	NI-3 LD78.	1.51e-01
6	87	94.6	66	7	R38951	NI-3 LD78 Thr15>Phe.	1.51e-01
7	87	94.6	69	7	R38934	LD78 Ile24>Thr.	1.51e-01
8	87	94.6	69	7	R39104	LD78 Ser37>Ala.	1.51e-01
9	87	94.6	69	7	R39089	LD78 Gln33>Ser.	1.51e-01
10	87	94.6	69	7	R39091	LD78 Ser31>Ala.	1.51e-01
11	87	94.6	69	7	R38982	LD78 Lys60>Ser.	1.51e-01
12	87	94.6	69	7	R38979	LD78 Arg43>Ser.	1.51e-01
13	87	94.6	69	7	R38971	LD78 Ala3>Ser.	1.51e-01
14	87	94.6	69	7	R38972	LD78 Ala4>Ser.	1.51e-01
15	87	94.6	69	7	R38978	LD78 Lys44>Ser.	1.51e-01
16	87	94.6	69	7	R38977	LD78 Phe23>Ala.	1.51e-01
17	87	94.6	69	7	R38961	LD78 Asp5>Arg.	1.51e-01
18	87	94.6	69	7	R38967	LD78 Arg17>Glu, Gln18	1.51e-01

19	87	94.6	69	7	R38968	LD78 Leu67>Glu.	1.51e-01
20	87	94.6	69	7	R38975	LD78 Phe28>Tyr.	1.51e-01
21	87	94.6	69	7	R38973	LD78 Leu67>Ala.	1.51e-01
22	87	94.6	69	7	R38965	LD78 Ala3>Glu.	1.51e-01
23	87	94.6	69	7	R38964	LD78 Leu2>Glu.	1.51e-01
24	87	94.6	69	7	R38953	LD78 Asp26>Ser.	1.51e-01
25	87	94.6	69	7	R38970	LD78 Leu2>Ala.	1.51e-01
26	87	94.6	69	7	R38969	LD78 Ser46>Ala.	1.51e-01
27	87	94.6	69	7	R38976	LD78 Asp5>Ser.	1.51e-01
28	87	94.6	69	7	R39092	LD78 Ser32>Ala.	1.51e-01
29	87	94.6	69	7	R39090	LD78 Tyr61>Ala.	1.51e-01
30	87	94.6	69	7	R39088	LD78 Ser1>Ala.	1.51e-01
31	87	94.6	69	7	R39096	LD78 Ser13>Ala.	1.51e-01
32	87	94.6	69	7	R38960	LD78 Gln18>Ser.	1.51e-01
33	87	94.6	69	7	R39126	LD78 Lys60>Asp.	1.51e-01
34	87	94.6	69	7	R39127	LD78 Tyr61>Asp.	1.51e-01
35	87	94.6	69	7	R38945	LD78 Gln29>Arg.	1.51e-01
36	87	94.6	69	7	R38955	LD78 Phe28>Ala.	1.51e-01
37	87	94.6	69	7	R38993	LD78 Leu42>Ala.	1.51e-01
38	87	94.6	69	7	R39095	LD78 Val62>Ala.	1.51e-01
39	87	94.6	69	7	R39110	LD78 Thr8>Ala.	1.51e-01
40	87	94.6	69	7	R39109	LD78 Thr43>Ala.	1.51e-01
41	87	94.6	69	7	R39108	LD78 Gln21>Ser.	1.51e-01
42	87	94.6	69	7	R39097	LD78 Ser18>Ala.	1.51e-01
43	87	94.6	69	7	R39099	LD78 Ser35>Ala.	1.51e-01
44	87	94.6	69	7	R38983	LD78 Asp64>Ser.	1.51e-01
45	87	94.6	69	7	R39087	LD78 Ala69>Ser.	1.51e-01
46	87	94.6	69	7	R39086	LD78 Gln66>Ser.	1.51e-01
47	87	94.6	69	7	R39098	LD78 Pro20>Ala.	1.51e-01
48	87	94.6	69	7	R39103	LD78 Ile19>Ala.	1.51e-01
49	87	94.6	69	7	R39102	LD78 Tyr14>Ala.	1.51e-01
50	87	94.6	69	7	R39101	LD78 Ser68>Ala.	1.51e-01
51	87	94.6	69	7	R39082	LD78 Asp26>Ala.	1.51e-01
52	87	94.6	69	7	R39083	LD78 Asp26>Ala.	1.51e-01
53	87	94.6	69	7	R39106	LD78 Val39>Ala.	1.51e-01
54	87	94.6	69	7	R39107	LD78 Thr6>Ala.	1.51e-01
55	87	94.6	69	7	R39133	LD78 Ser31>Glu.	1.51e-01
56	87	94.6	69	7	R38957	LD78 Ile40>Ala.	1.51e-01
57	87	94.6	69	7	R39117	LD78 Ala25>Ser.	1.51e-01
58	87	94.6	69	7	R39115	LD78 Thr15>Ala.	1.51e-01
59	87	94.6	69	7	R39105	LD78 Gln38>Ala.	1.51e-01
60	87	94.6	69	7	R38956	LD78 Ile24>Ala.	1.51e-01
61	87	94.6	69	7	R39141	LD78 Arg45>Glu.	1.51e-01
62	87	94.6	69	7	R39085	LD78 Leu65>Ala.	1.51e-01
63	87	94.6	69	7	R39084	LD78 Lys36>Ser.	1.51e-01
64	87	94.6	69	7	R39145	LD78 Ile24>Val.	1.51e-01
65	87	94.6	69	7	R38958	LD78 Arg47>Ser.	1.51e-01
66	87	94.6	69	7	R38932	LD78 Asp26>Ala.	1.51e-01
67	87	94.6	69	7	R39134	LD78 Gln29>Ser.	1.51e-01
68	87	94.6	69	7	R39140	LD78 Ile40>Asn.	1.51e-01
69	87	94.6	69	7	R39140	LD78 Lys44>Glu.	1.51e-01
70	87	94.6	69	7	R38931	LD78 Phe23>Asn.	1.51e-01
71	87	94.6	69	7	R39146	LD78 Arg17>Glu.	1.51e-01
72	87	94.6	69	7	R38930	LD78 Arg1>Ser.	1.51e-01
73	87	94.6	69	7	R39139	LD78 Lys36>Glu.	1.51e-01
74	87	94.6	69	7	R38939	LD78 Ile24>Asn.	1.51e-01
75	87	94.6	69	7	R39128	LD78 Phe12>Asp.	1.51e-01
76	87	94.6	69	7	R38935	LD78 Ile40>Arg.	1.51e-01
77	87	94.6	69	7	R38945	LD78 Arg17>Ser.	1.51e-01
78	87	94.6	69	7	R38929	LD78 Phe28>Glu.	1.51e-01
79	87	94.6	69	7	R39130	LD78 Ser68>Glu.	1.51e-01
80	87	94.6	69	7	R39136	LD78 Asn22>Ser.	1.51e-01
81	87	94.6	69	7	R39135	LD78 Leu42>Asn.	1.51e-01
82	87	94.6	69	7	R39136	LD78 Cys10>Cys11 > C	1.51e-01
83	87	94.6	69	7	R38949	LD78 Ser1>Pro	1.51e-01
84	87	94.6	69	7	R26214	Macrophage inflammatory	1.51e-01
85	87	94.6	69	7	R45917	Human MIP 1-alpha.	1.51e-01
86	87	94.6	69	7	R38946	Ser-Ala-LD78.	1.51e-01
87	87	94.6	69	7	R38947	LD78 Ser-Ala-Ser1>Pro	1.51e-01
88	87	94.6	69	7	R38962	LD78 Arg17>Glu, Gln18	1.51e-01
89	87	94.6	69	7	R38950	Leu-Ser-Ala-Ser1>Pro	1.51e-01
90	87	94.6	69	7			
91	87	94.6	69	7			

92	87	94.6	91.4	R22711	Human MIP-1 alpha	1.51e-01
93	87	94.6	92.12	R62618	Variant stem cell inh	1.51e-01
94	87	94.6	92.7	R36769	MIP-1alpha.	1.51e-01
95	87	94.6	92.1	R04221	Protein encoded by PA	1.51e-01
96	87	94.6	93.13	R70797	MIP-1-alpha.	1.51e-01
97	87	94.6	93.12	R62616	Stem cell inhibitor,	1.51e-01
98	87	94.6	93.2	R1553	Human Stem Cell inh	1.51e-01
99	87	94.6	93.3	R16915	LD78beta.	1.51e-01
100	87	94.6	93.12	R62617	Variant stem cell inh	1.51e-01

ALIGNMENTS

RESULT 1

ID R38940 standard; Protein; 69 AA.

AC R38940;

DE 23-NOV-1993 (first entry)

LD78 Phe28>Glu, Gln48>Glu.

KW SCI: stem cell inhibition; LD78; ACR2; MIP-1alpha;

KW macrophage inflammatory protein; multimer; tumour therapy;

KW psoriasis; hyperproliferation.

OS Homo sapiens.

PN WO9313206-A.

PD 08-JUL-1993.

PF 23-DEC-1992; G02390.

PR 23-DEC-1991; GB-027319.

PR 14-OCT-1992; GB-021587.

PA (BRBI-) BRITISH BIO-TECHNOLOGY LTD.

PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;

PI Hunter MG;

DR WPI: 93-227322/28.

PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1

PT alpha - unable to form stable multimer higher than dodecamer,

PS providing better tissue penetration

PS Example 15; Page 55; 294pp; English.

CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-1

CC alpha, having mutations to prevent or reduce multimer formation

CC beyond certain stages (e.g. dodecamer), have improved solution

CC properties leading to enhanced productivity and greater therapeutic

CC utility as stem cell protective agents. The analogues may be used

CC in tumour therapy, psoriasis or other diseases involving hyper-

CC proliferative stem cells.

CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with

CC Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha

CC analogues correspond to the pref. LD78 analogues.

CC Sequence 69 AA;

SQ

Query Match 97.8%; Score 90; DB 7; Length 69;

Best Local Similarity 91.7%; Pred. No. 7.79e-02;

Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 48 evcadpseewq 59

1 EICADPSEEWQ 12

QY

RESULT 2

ID R38926 standard; Protein; 69 AA.

AC R38926;

DE 23-NOV-1993 (first entry)

LD78 Gln48>Glu.

KW SCI: stem cell inhibition; LD78; ACR2; MIP-1alpha;

KW macrophage inflammatory protein; multimer; tumour therapy;

KW psoriasis; hyperproliferation.

OS Homo sapiens.

PN WO9313206-A.

PD 08-JUL-1993.

PF 23-DEC-1992; G02390.

PR 23-DEC-1991; GB-027319.

PR 14-OCT-1992; GB-021587.

PA (BRBI-) BRITISH BIO-TECHNOLOGY LTD.

PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;

PI Hunter MG;

DR WPI: 93-227322/28.

PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1

PT alpha - unable to form stable multimer higher than dodecamer,

PS providing better tissue penetration

PS Example 1; Page 48-50; 294pp; English.

CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-1

CC alpha, having mutations to prevent or reduce multimer formation

CC beyond certain stages (e.g. dodecamer), have improved solution

CC properties leading to enhanced productivity and greater therapeutic

CC utility as stem cell protective agents. The analogues may be used

CC in tumour therapy, psoriasis or other diseases involving hyper-

CC proliferative stem cells.

CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with

CC Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha

CC analogues correspond to the pref. LD78 analogues.

CC Sequence 69 AA;

SQ

Query Match 97.8%; Score 90; DB 7; Length 69;

Best Local Similarity 91.7%; Pred. No. 7.79e-02;

Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 48 evcadpseewq 59

1 EICADPSEEWQ 12

QY

RESULT 3

ID R38974 standard; Protein; 63 AA.

AC R38974;

DE 23-NOV-1993 (first entry)

LD78 Phe28>Glu, Gln48>Glu.

KW SCI: stem cell inhibition; LD78; ACR2; MIP-1alpha;

KW macrophage inflammatory protein; multimer; tumour therapy;

KW psoriasis; hyperproliferation.

OS Homo sapiens.

PN WO9313206-A.

PD 08-JUL-1993.

PF 23-DEC-1992; G02390.

PR 23-DEC-1991; GB-027319.

PR 14-OCT-1992; GB-021587.

PA (BRBI-) BRITISH BIO-TECHNOLOGY LTD.

PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;

PI Hunter MG;

DR WPI: 93-227322/28.

PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1

PT alpha - unable to form stable multimer higher than dodecamer,

PS providing better tissue penetration

PS Example 49; Page 68; 294pp; English.

CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-1

CC alpha, having mutations to prevent or reduce multimer formation

CC beyond certain stages (e.g. dodecamer), have improved solution

CC properties leading to enhanced productivity and greater therapeutic

CC utility as stem cell protective agents. The analogues may be used

CC in tumour therapy, psoriasis or other diseases involving hyper-

CC proliferative stem cells.

CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with

CC Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha

CC analogues correspond to the pref. LD78 analogues.

CC Sequence 63 AA;

SQ

Query Match 94.6%; Score 87; DB 7; Length 63;

Best Local Similarity 83.3%; Pred. No. 1.51e-01;

Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 42 evcadpseewq 53

1 EICADPSEEWQ 12

QY

RESULT 4

ID R39081 standard; Protein; 64 AA.

AC R39081;

DE 23-NOV-1993 (first entry)

DE LD78 C65-69.
 KM SCI; stem cell inhibition; LD78; ACT2; MIP-1alpha;
 KM macrophage inflammatory protein; multimer; tumour therapy;
 KM psoriasis; hyperproliferation.
 OS Homo sapiens.
 PN WO9313206-A.
 PD 08-JUL-1993.
 PF 23-DEC-1992; G02390.
 PR 23-DEC-1991; GB-027319.
 PR 14-OCT-1992; GB-021587.
 PA (BRBI-) BRITISH BIO-TECHNOLOGY LTD.
 PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
 PI Hunter MG;
 DR WPI: 93-227322/28.
 PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
 PT alpha - unable to form stable multimer higher than dodecamer,
 PT providing better tissue penetration.
 PS Example 59; Page 71; 294pp; English.
 CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-
 CC 1alpha, having mutations to prevent or reduce multimer formation
 CC beyond certain stages (e.g. dodecamer), have improved solution
 CC properties leading to enhanced productivity and greater therapeutic
 CC utility as stem cell protective agents. The analogues may be used
 CC in tumour therapy, psoriasis or other diseases involving hyper-
 CC proliferative stem cells.
 CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with
 CC Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha
 CC analogues correspond to the pref. LD78 analogues.
 SQ Sequence 64 AA;

Query Match 94.6%; Score 87; DB 7; Length 64;
 Best Local Similarity 83.3%; Pred. No. 1.51e-01;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
 Db 48 qvcadpsewvq 59
 :|||||
 Qy 1 EICADPSEWVQ 12

RESULT 5
 ID R38948 standard; Protein; 66 AA.
 AC R38948;
 DT 23-NOV-1993 (first entry)
 DE N1-3 LD78.
 KM SCI; stem cell inhibition; LD78; ACT2; MIP-1alpha;
 KM macrophage inflammatory protein; multimer; tumour therapy;
 KM psoriasis; hyperproliferation.
 OS Homo sapiens.
 PN WO9313206-A.
 PD 08-JUL-1993.
 PF 23-DEC-1992; G02390.
 PR 23-DEC-1991; GB-027319.
 PR 14-OCT-1992; GB-021587.
 PA (BRBI-) BRITISH BIO-TECHNOLOGY LTD.
 PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
 PI Hunter MG;
 DR WPI: 93-227322/28.
 PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
 PT alpha - unable to form stable multimer higher than dodecamer,
 PT providing better tissue penetration.
 PS Example 23; Page 58; 294pp; English.
 CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-
 CC 1alpha, having mutations to prevent or reduce multimer formation
 CC beyond certain stages (e.g. dodecamer), have improved solution
 CC properties leading to enhanced productivity and greater therapeutic
 CC utility as stem cell protective agents. The analogues may be used
 CC in tumour therapy, psoriasis or other diseases involving hyper-
 CC proliferative stem cells.
 CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with
 CC Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha
 CC analogues correspond to the pref. LD78 analogues.
 SQ Sequence 66 AA;

Query Match 94.6%; Score 87; DB 7; Length 66;
 Best Local Similarity 83.3%; Pred. No. 1.51e-01;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
 Db 45 qvcadpsewvq 56
 :|||||
 Qy 1 EICADPSEWVQ 12

RESULT 6
 ID R38951 standard; Protein; 66 AA.
 AC R38951;
 DT 23-NOV-1993 (first entry)
 DE N1-3 LD78 Thr15>Phe.
 KM SCI; stem cell inhibition; LD78; ACT2; MIP-1alpha;
 KM macrophage inflammatory protein; multimer; tumour therapy;
 KM psoriasis; hyperproliferation.
 OS Homo sapiens.
 PN WO9313206-A.
 PD 08-JUL-1993.
 PF 23-DEC-1992; G02390.
 PR 23-DEC-1991; GB-027319.
 PR 14-OCT-1992; GB-021587.
 PA (BRBI-) BRITISH BIO-TECHNOLOGY LTD.
 PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
 PI Hunter MG;
 DR WPI: 93-227322/28.
 PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
 PT alpha - unable to form stable multimer higher than dodecamer,
 PT providing better tissue penetration.
 PS Example 26; Page 59; 294pp; English.
 CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-
 CC 1alpha, having mutations to prevent or reduce multimer formation
 CC beyond certain stages (e.g. dodecamer), have improved solution
 CC properties leading to enhanced productivity and greater therapeutic
 CC utility as stem cell protective agents. The analogues may be used
 CC in tumour therapy, psoriasis or other diseases involving hyper-
 CC proliferative stem cells.
 CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with
 CC Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha
 CC analogues correspond to the pref. LD78 analogues.
 SQ Sequence 66 AA;

Query Match 94.6%; Score 87; DB 7; Length 66;
 Best Local Similarity 83.3%; Pred. No. 1.51e-01;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
 Db 45 qvcadpsewvq 56
 :|||||
 Qy 1 EICADPSEWVQ 12

RESULT 7
 ID R38934 standard; Protein; 69 AA.
 AC R38934;
 DT 23-NOV-1993 (first entry)
 DE LD78 Ile24>Tmr.
 KM SCI; stem cell inhibition; LD78; ACT2; MIP-1alpha;
 KM macrophage inflammatory protein; multimer; tumour therapy;
 KM psoriasis; hyperproliferation.
 OS Homo sapiens.
 PN WO9313206-A.
 PD 08-JUL-1993.
 PF 23-DEC-1992; G02390.
 PR 23-DEC-1991; GB-027319.
 PR 14-OCT-1992; GB-021587.
 PA (BRBI-) BRITISH BIO-TECHNOLOGY LTD.
 PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
 PI Hunter MG;
 DR WPI: 93-227322/28.
 PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
 PT alpha - unable to form stable multimer higher than dodecamer,
 PT providing better tissue penetration

PS Example 9: Page 53: 294pp: English.
 CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-1
 CC 1alpha, having mutations to prevent or reduce multimer formation
 CC beyond certain stages (e.g. dodecamer), have improved solution
 CC properties leading to enhanced productivity and greater therapeutic
 CC utility as stem cell protective agents. The analogues may be used
 CC in tumour therapy, psoriasis or other diseases involving hyper-
 CC proliferative stem cells.
 CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with
 CC Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha
 CC analogues correspond to the pref. LD78 analogues.
 SQ Sequence 69 AA;

Query Match 94.6%; Score 87; DB 7; Length 69;
 Best Local Similarity 83.3%; Pred. No. 1.51e-01;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 48 qvcadpsewq 59
 :|||||||||
 QY 1 EICADPSEWQ 12

RESULT 8
 ID R39104 standard; Protein; 69 AA.
 AC R39104;
 DT 23-NOV-1993 (first entry)
 DE LD78 Pro37>Ala.
 KW SCI; stem cell inhibition; LD78; ACT2; MIP-1alpha;
 KW macrophage inflammatory protein; multimer; tumour therapy;
 KW psoriasis; hyperproliferation.
 OS Homo sapiens.
 PN WO9313206-A.
 PD 08-JUL-1993.
 PF 23-DEC-1992; G02390.
 PR 14-DEC-1991; GB-027319.
 PR 14-DEC-1992; GB-021587.
 PA (BRB1-) BRITISH BIO-TECHNOLOGY LTD.
 PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
 PI Hunter MG;
 DR WPI: 93-227322/28.
 PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
 PT alpha - unable to form stable multimer higher than dodecamer,
 PT providing better tissue penetration
 PS Example 82; Page 79; 294pp: English.
 CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-
 CC 1alpha, having mutations to prevent or reduce multimer formation
 CC beyond certain stages (e.g. dodecamer), have improved solution
 CC properties leading to enhanced productivity and greater therapeutic
 CC utility as stem cell protective agents. The analogues may be used
 CC in tumour therapy, psoriasis or other diseases involving hyper-
 CC proliferative stem cells.
 CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with
 CC Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha
 CC analogues correspond to the pref. LD78 analogues.
 SQ Sequence 69 AA;

OS Homo sapiens.
 PN WO9313206-A.
 PD 08-JUL-1993.
 PF 23-DEC-1992; G02390.
 PR 23-DEC-1991; GB-027319.
 PR 14-DEC-1992; GB-021587.
 PA (BRB1-) BRITISH BIO-TECHNOLOGY LTD.
 PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
 PI Hunter MG;
 DR WPI: 93-227322/28.
 PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
 PT alpha - unable to form stable multimer higher than dodecamer,
 PT providing better tissue penetration
 PS Example 67; Page 74; 294pp: English.
 CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-
 CC 1alpha, having mutations to prevent or reduce multimer formation
 CC beyond certain stages (e.g. dodecamer), have improved solution
 CC properties leading to enhanced productivity and greater therapeutic
 CC utility as stem cell protective agents. The analogues may be used
 CC in tumour therapy, psoriasis or other diseases involving hyper-
 CC proliferative stem cells.
 CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with
 CC Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha
 CC analogues correspond to the pref. LD78 analogues.
 SQ Sequence 69 AA;

Query Match 94.6%; Score 87; DB 7; Length 69;
 Best Local Similarity 83.3%; Pred. No. 1.51e-01;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 48 qvcadpsewq 59
 :|||||||||
 QY 1 EICADPSEWQ 12

RESULT 10
 ID R39091 standard; Protein; 69 AA.
 AC R39091;
 DT 23-NOV-1993 (first entry)
 DE LD78 Ser31>Ala.
 KW SCI; stem cell inhibition; LD78; ACT2; MIP-1alpha;
 KW macrophage inflammatory protein; multimer; tumour therapy;
 KW psoriasis; hyperproliferation.
 OS Homo sapiens.
 PN WO9313206-A.
 PD 08-JUL-1993.
 PF 23-DEC-1992; G02390.
 PR 23-DEC-1991; GB-027319.
 PR 14-DEC-1992; GB-021587.
 PA (BRB1-) BRITISH BIO-TECHNOLOGY LTD.
 PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
 PI Hunter MG;
 DR WPI: 93-227322/28.
 PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
 PT alpha - unable to form stable multimer higher than dodecamer,
 PT providing better tissue penetration
 PS Example 69; Page 75; 294pp: English.
 CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-
 CC 1alpha, having mutations to prevent or reduce multimer formation
 CC beyond certain stages (e.g. dodecamer), have improved solution
 CC properties leading to enhanced productivity and greater therapeutic
 CC utility as stem cell protective agents. The analogues may be used
 CC in tumour therapy, psoriasis or other diseases involving hyper-
 CC proliferative stem cells.
 CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with
 CC Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha
 CC analogues correspond to the pref. LD78 analogues.
 SQ Sequence 69 AA;

Query Match 94.6%; Score 87; DB 7; Length 69;
 Best Local Similarity 83.3%; Pred. No. 1.51e-01;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 48 gvcadpseewq 59
 :|||||
 Oy 1 EICADPSEEWQ 12

RESULT 11
 ID R38982 standard; Protein: 69 AA.

AC R38982;
 DT 23-NOV-1993 (first entry)
 DE LD78 Lys60>Ser.
 KW SCI; stem cell inhibition; LD78; ACT2; MIP-1alpha;
 KW macrophage inflammatory protein; multimer; tumour therapy;
 KW psoriasis; hyperproliferation.
 OS Homo sapiens.
 PN WO9313206-A.
 PD 08-JUL-1993.
 PR 23-DEC-1992; G02390.
 PF 23-DEC-1991; GB-027319.
 PR 14-OCT-1992; GB-021587.
 PA (BBRI-) BRITISH BIO-TECHNOLOGY LTD.
 PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
 PI Hunter MG;
 PI WPI: 93-227322/28.

PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
 PT alpha - unable to form stable multimer higher than dodecamer,
 PT providing better tissue penetration
 PS Example 57; Page 70-71; 294pp; English.
 CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-
 CC 1alpha, having mutations to prevent or reduce multimer formation
 CC beyond certain stages (e.g. dodecamer), have improved solution
 CC properties leading to enhanced productivity and greater therapeutic
 CC utility as stem cell protective agents. The analogues may be used
 CC in tumour therapy, psoriasis or other diseases involving hyper-
 CC proliferative stem cells.
 CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with
 CC Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha
 CC analogues correspond to the pref. LD78 analogues.
 SQ Sequence 69 AA;

Query Match 94.6%; Score 87; DB 7; Length 69;
 Best Local Similarity 83.3%; Pred. No. 1.51e-01;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 48 gvcadpseewq 59
 :|||||
 Oy 1 EICADPSEEWQ 12

RESULT 12
 ID R38979 standard; Protein: 69 AA.

AC R38979;
 DT 23-NOV-1993 (first entry)
 DE LD78 Arg45>Ser.
 KW SCI; stem cell inhibition; LD78; ACT2; MIP-1alpha;
 KW macrophage inflammatory protein; multimer; tumour therapy;
 KW psoriasis; hyperproliferation.
 OS Homo sapiens.
 PN WO9313206-A.
 PD 08-JUL-1993.
 PR 23-DEC-1992; G02390.
 PF 23-DEC-1991; GB-027319.
 PR 14-OCT-1992; GB-021587.
 PA (BBRI-) BRITISH BIO-TECHNOLOGY LTD.
 PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
 PI Hunter MG;
 PI WPI: 93-227322/28.

PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
 PT alpha - unable to form stable multimer higher than dodecamer,
 PT providing better tissue penetration
 PS Example 54; Page 69-70; 294pp; English.
 CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-
 CC 1alpha, having mutations to prevent or reduce multimer formation
 CC beyond certain stages (e.g. dodecamer), have improved solution

CC properties leading to enhanced productivity and greater therapeutic
 CC utility as stem cell protective agents. The analogues may be used
 CC in tumour therapy, psoriasis or other diseases involving hyper-
 CC proliferative stem cells.
 CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with
 CC Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha
 CC analogues correspond to the pref. LD78 analogues.
 SQ Sequence 69 AA;

Query Match 94.6%; Score 87; DB 7; Length 69;
 Best Local Similarity 83.3%; Pred. No. 1.51e-01;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 48 gvcadpseewq 59
 :|||||
 Oy 1 EICADPSEEWQ 12

RESULT 13
 ID R38971 standard; Protein: 69 AA.

AC R38971;
 DT 23-NOV-1993 (first entry)
 DE LD78 Ala3>Ser.
 KW SCI; stem cell inhibition; LD78; ACT2; MIP-1alpha;
 KW macrophage inflammatory protein; multimer; tumour therapy;
 KW psoriasis; hyperproliferation.
 OS Homo sapiens.
 PN WO9313206-A.
 PD 08-JUL-1993.
 PR 23-DEC-1992; G02390.
 PF 23-DEC-1991; GB-027319.
 PR 14-OCT-1992; GB-021587.
 PA (BBRI-) BRITISH BIO-TECHNOLOGY LTD.
 PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
 PI Hunter MG;
 PI WPI: 93-227322/28.

PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
 PT alpha - unable to form stable multimer higher than dodecamer,
 PT providing better tissue penetration
 PS Example 46; Page 67; 294pp; English.
 CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-
 CC 1alpha, having mutations to prevent or reduce multimer formation
 CC beyond certain stages (e.g. dodecamer), have improved solution
 CC properties leading to enhanced productivity and greater therapeutic
 CC utility as stem cell protective agents. The analogues may be used
 CC in tumour therapy, psoriasis or other diseases involving hyper-
 CC proliferative stem cells.
 CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with
 CC Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha
 CC analogues correspond to the pref. LD78 analogues.
 SQ Sequence 69 AA;

Query Match 94.6%; Score 87; DB 7; Length 69;
 Best Local Similarity 83.3%; Pred. No. 1.51e-01;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 48 gvcadpseewq 59
 :|||||
 Oy 1 EICADPSEEWQ 12

RESULT 14
 ID R38972 standard; Protein: 69 AA.

AC R38972;
 DT 23-NOV-1993 (first entry)
 DE LD78 Ala4>Ser.
 KW SCI; stem cell inhibition; LD78; ACT2; MIP-1alpha;
 KW macrophage inflammatory protein; multimer; tumour therapy;
 KW psoriasis; hyperproliferation.
 OS Homo sapiens.
 PN WO9313206-A.
 PD 08-JUL-1993.
 PR 23-DEC-1992; G02390.

PR 23-DEC-1991; GB-027319.
 PR 14-OCT-1992; GB-021587.
 PA (BRBI-) BRITISH BIO-TECHNOLOGY LTD.
 PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
 PI Hunter MG;
 DR WPI: 93-227322/28.
 PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
 PI alpha - unable to form stable multimer higher than dodecamer,
 PT providing better tissue penetration
 PS Example 47; Page 67; 294pp; English.
 CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-
 CC 1alpha, having mutations to prevent or reduce multimer formation
 CC beyond certain stages (e.g. dodecamer), have improved solution
 CC properties leading to enhanced productivity and greater therapeutic
 CC utility as stem cell protective agents. The analogues may be used
 CC in tumour therapy, psoriasis or other diseases involving hyper-
 CC proliferative stem cells.
 CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with
 CC Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha
 CC analogues correspond to the pref. LD78 analogues.
 SQ Sequence 69 AA;

Query Match 94.6%; Score 87; DB 7; Length 69;
 Best Local Similarity 83.3%; Pred. No. 1.51e-01;

Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

DB 48 qvcadpsewvq 59
 :|||||
 QY 1 EICADPSEWVQ 12

RESULT 15
 ID R38978 standard; Protein; 69 AA.
 AC R38978;
 DT 23-NOV-1993 (first entry)
 DE LD78 Lys44>Ser.
 KW SCI: stem cell inhibition; LD78; ACT2; MIP-1alpha;
 KW macrophage inflammatory protein; multimer; tumour therapy;
 KW psoriasis; hyperproliferation.
 OS Homo sapiens.
 PN WO9313206-A.
 PD 08-JUL-1993.
 PF 23-DEC-1992; G02390.
 PR 23-DEC-1991; GB-027319.
 PR 14-OCT-1992; GB-021587.
 PA (BRBI-) BRITISH BIO-TECHNOLOGY LTD.
 PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
 PI Hunter MG;
 DR WPI: 93-227322/28.
 PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
 PT alpha - unable to form stable multimer higher than dodecamer,
 PT providing better tissue penetration
 PS Example 53; Page 69; 294pp; English.
 CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-
 CC 1alpha, having mutations to prevent or reduce multimer formation
 CC beyond certain stages (e.g. dodecamer), have improved solution
 CC properties leading to enhanced productivity and greater therapeutic
 CC utility as stem cell protective agents. The analogues may be used
 CC in tumour therapy, psoriasis or other diseases involving hyper-
 CC proliferative stem cells.
 CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with
 CC Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha
 CC analogues correspond to the pref. LD78 analogues.
 SQ Sequence 69 AA;

Query Match 94.6%; Score 87; DB 7; Length 69;
 Best Local Similarity 83.3%; Pred. No. 1.51e-01;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

DB 48 qvcadpsewvq 59
 :|||||
 QY 1 EICADPSEWVQ 12

RESULT 16
 ID R38977 standard; Protein; 69 AA.
 AC R38977;
 DT 23-NOV-1993 (first entry)
 DE LD78 Phe23>Ala.
 KW SCI: stem cell inhibition; LD78; ACT2; MIP-1alpha;
 KW macrophage inflammatory protein; multimer; tumour therapy;
 KW psoriasis; hyperproliferation.
 OS Homo sapiens.
 PN WO9313206-A.
 PD 08-JUL-1993.
 PF 23-DEC-1992; G02390.
 PR 23-DEC-1991; GB-027319.
 PR 14-OCT-1992; GB-021587.
 PA (BRBI-) BRITISH BIO-TECHNOLOGY LTD.
 PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
 PI Hunter MG;
 DR WPI: 93-227322/28.
 PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
 PT alpha - unable to form stable multimer higher than dodecamer,
 PT providing better tissue penetration
 PS Example 52; Page 69; 294pp; English.
 CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-
 CC 1alpha, having mutations to prevent or reduce multimer formation
 CC beyond certain stages (e.g. dodecamer), have improved solution
 CC properties leading to enhanced productivity and greater therapeutic
 CC utility as stem cell protective agents. The analogues may be used
 CC in tumour therapy, psoriasis or other diseases involving hyper-
 CC proliferative stem cells.
 CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with
 CC Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha
 CC analogues correspond to the pref. LD78 analogues.
 SQ Sequence 69 AA;

Query Match 94.6%; Score 87; DB 7; Length 69;
 Best Local Similarity 83.3%; Pred. No. 1.51e-01;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

DB 48 qvcadpsewvq 59
 :|||||
 QY 1 EICADPSEWVQ 12

RESULT 17
 ID R38961 standard; Protein; 69 AA.
 AC R38961;
 DT 23-NOV-1993 (first entry)
 DE LD78 Asp5>Arg.
 KW SCI: stem cell inhibition; LD78; ACT2; MIP-1alpha;
 KW macrophage inflammatory protein; multimer; tumour therapy;
 KW psoriasis; hyperproliferation.
 OS Homo sapiens.
 PN WO9313206-A.
 PD 08-JUL-1993.
 PF 23-DEC-1992; G02390.
 PR 23-DEC-1991; GB-027319.
 PR 14-OCT-1992; GB-021587.
 PA (BRBI-) BRITISH BIO-TECHNOLOGY LTD.
 PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
 PI Hunter MG;
 DR WPI: 93-227322/28.
 PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
 PT alpha - unable to form stable multimer higher than dodecamer,
 PT providing better tissue penetration
 PS Example 36; Page 63; 294pp; English.
 CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-
 CC 1alpha, having mutations to prevent or reduce multimer formation
 CC beyond certain stages (e.g. dodecamer), have improved solution
 CC properties leading to enhanced productivity and greater therapeutic
 CC utility as stem cell protective agents. The analogues may be used
 CC in tumour therapy, psoriasis or other diseases involving hyper-
 CC proliferative stem cells.

CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with
CC Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha
CC analogues correspond to the pref. LD78 analogues.
SQ Sequence 69 AA;

Query Match 94.6%; Score 87; DB 7; Length 69;
Best Local Similarity 83.3%; Pred. No. 1.51e-01;
Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 48 gvcadpseewvq 59
:::|||||
QY 1 EICADPSEEWVQ 12

RESULT 18
ID R38967 standard; Protein: 69 AA.
AC R38967;
DT 23-NOV-1993 (first entry)
DE LD78 Arg17>Glu, Gln18>Glu.
KW SCI; stem cell inhibition; LD78; ACT2; MIP-1alpha;
KW macrophage inflammatory protein; multimer; tumour therapy;
KW psoriasis; hyperproliferation.
OS Homo sapiens.
PN MO9313206-A.
PD 08-JUL-1993.
PE 23-DEC-1992; G02390.
PF 23-DEC-1991; GB-027319.
PR 14-OCT-1992; GB-021587.
PT (BRRI-) BRITISH BIO-TECHNOLOGY LTD.
PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
PI Hunter MG; WP1: 93-227322/28.
PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
PT alpha - unable to form stable multimer higher than dodecamer,
PT providing better tissue penetration
PS Example 42; Page 65; 294pp; English.
CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-
CC 1alpha, having mutations to prevent or reduce multimer formation
CC beyond certain stages (e.g. dodecamer), have improved solution
CC properties leading to enhanced productivity and greater therapeutic
CC utility as stem cell protective agents. The analogues may be used
CC in tumour therapy, psoriasis or other diseases involving hyper-
CC proliferative stem cells.
CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with
CC Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha
CC analogues correspond to the pref. LD78 analogues.
SQ Sequence 69 AA;

Query Match 94.6%; Score 87; DB 7; Length 69;
Best Local Similarity 83.3%; Pred. No. 1.51e-01;
Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 48 gvcadpseewvq 59
:::|||||
QY 1 EICADPSEEWVQ 12

RESULT 19
ID R38968 standard; Protein: 69 AA.
AC R38968;
DT 23-NOV-1993 (first entry)
DE LD78 Leu67>Glu.
KW SCI; stem cell inhibition; LD78; ACT2; MIP-1alpha;
KW macrophage inflammatory protein; multimer; tumour therapy;
KW psoriasis; hyperproliferation.
OS Homo sapiens.
PN MO9313206-A.
PD 08-JUL-1993.
PE 23-DEC-1992; G02390.
PF 23-DEC-1991; GB-027319.
PR 14-OCT-1992; GB-021587.
PT (BRRI-) BRITISH BIO-TECHNOLOGY LTD.
PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;

PT Hunter MG; WP1: 93-227322/28.
DR Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
PT alpha - unable to form stable multimer higher than dodecamer,
PT providing better tissue penetration
PS Example 43; Page 65-66; 294pp; English.
CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-
CC 1alpha, having mutations to prevent or reduce multimer formation
CC beyond certain stages (e.g. dodecamer), have improved solution
CC properties leading to enhanced productivity and greater therapeutic
CC utility as stem cell protective agents. The analogues may be used
CC in tumour therapy, psoriasis or other diseases involving hyper-
CC proliferative stem cells.
CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with
CC Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha
CC analogues correspond to the pref. LD78 analogues.
SQ Sequence 69 AA;

Query Match 94.6%; Score 87; DB 7; Length 69;
Best Local Similarity 83.3%; Pred. No. 1.51e-01;
Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 48 gvcadpseewvq 59
:::|||||
QY 1 EICADPSEEWVQ 12

RESULT 20
ID R38975 standard; Protein: 69 AA.
AC R38975;
DT 23-NOV-1993 (first entry)
DE LD78 Phe28>Tyr.
KW SCI; stem cell inhibition; LD78; ACT2; MIP-1alpha;
KW macrophage inflammatory protein; multimer; tumour therapy;
KW psoriasis; hyperproliferation.
OS Homo sapiens.
PN MO9313206-A.
PD 08-JUL-1993.
PE 23-DEC-1992; G02390.
PF 23-DEC-1991; GB-027319.
PR 14-OCT-1992; GB-021587.
PT (BRRI-) BRITISH BIO-TECHNOLOGY LTD.
PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
PI Hunter MG; WP1: 93-227322/28.
PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
PT alpha - unable to form stable multimer higher than dodecamer,
PT providing better tissue penetration
PS Example 50; Page 68; 294pp; English.
CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-
CC 1alpha, having mutations to prevent or reduce multimer formation
CC beyond certain stages (e.g. dodecamer), have improved solution
CC properties leading to enhanced productivity and greater therapeutic
CC utility as stem cell protective agents. The analogues may be used
CC in tumour therapy, psoriasis or other diseases involving hyper-
CC proliferative stem cells.
CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with
CC Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha
CC analogues correspond to the pref. LD78 analogues.
SQ Sequence 69 AA;

Query Match 94.6%; Score 87; DB 7; Length 69;
Best Local Similarity 83.3%; Pred. No. 1.51e-01;
Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 48 gvcadpseewvq 59
:::|||||
QY 1 EICADPSEEWVQ 12

RESULT 21
ID R38973 standard; Protein: 69 AA.
AC R38973;

DT 23-NOV-1993 (first entry)
 DE LD78 Leu67>Ala.
 KW SCI; stem cell inhibition; LD78; ACT2; MIP-1alpha;
 KW macrophage inflammatory protein; multimer; tumour therapy;
 KW psoriasis; hyperproliferation.
 OS Homo sapiens.
 PN W09313206-A.
 PD 08-JUL-1993.
 PF 23-DEC-1992; G02390.
 PR 23-DEC-1991; GB-027319.
 PR 14-OCT-1992; GB-021587.
 PA (BRBI-) BRITISH BIO-TECHNOLOGY LTD.
 PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
 PI Hunter MG;
 DR WPI: 93-227322/28.
 PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
 alpha - unable to form stable multimer higher than dodecamer,
 PS providing better tissue penetration
 PS Example 48; Page 67; 294pp; English.
 CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-
 1alpha, having mutations to prevent or reduce multimer formation
 CC beyond certain stages (e.g. dodecamer), have improved solution
 CC properties leading to enhanced productivity and greater therapeutic
 CC utility as stem cell protective agents. The analogues may be used
 CC in tumour therapy, psoriasis or other diseases involving hyper-
 CC proliferative stem cells.
 CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with
 CC Gln18>Gln) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha
 CC analogues correspond to the pref. LD78 analogues.
 SQ Sequence 69 AA;

Query Match 94.6%; Score 87; DB 7; Length 69;
 Best Local Similarity 83.3%; Pred. No. 1.51e-01;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 48 gvcadpseewq 59
 :|||||
 QY 1 EICADPSEEWQ 12

RESULT 22
 ID R38965 standard; Protein; 69 AA.
 AC R38965;
 DT 23-NOV-1993 (first entry)
 DE LD78 Ala3>Gln.
 KW SCI; stem cell inhibition; LD78; ACT2; MIP-1alpha;
 KW macrophage inflammatory protein; multimer; tumour therapy;
 KW psoriasis; hyperproliferation.
 OS Homo sapiens.
 PN W09313206-A.
 PD 08-JUL-1993.
 PF 23-DEC-1992; G02390.
 PR 23-DEC-1991; GB-027319.
 PR 14-OCT-1992; GB-021587.
 PA (BRBI-) BRITISH BIO-TECHNOLOGY LTD.
 PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
 PI Hunter MG;
 DR WPI: 93-227322/28.
 PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
 alpha - unable to form stable multimer higher than dodecamer,
 PS providing better tissue penetration
 PS Example 40; Page 64-65; 294pp; English.
 CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-
 1alpha, having mutations to prevent or reduce multimer formation
 CC beyond certain stages (e.g. dodecamer), have improved solution
 CC properties leading to enhanced productivity and greater therapeutic
 CC utility as stem cell protective agents. The analogues may be used
 CC in tumour therapy, psoriasis or other diseases involving hyper-
 CC proliferative stem cells.
 CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with
 CC Gln18>Gln) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha
 CC analogues correspond to the pref. LD78 analogues.
 SQ Sequence 69 AA;

Query Match 94.6%; Score 87; DB 7; Length 69;
 Best Local Similarity 83.3%; Pred. No. 1.51e-01;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 48 gvcadpseewq 59
 :|||||
 QY 1 EICADPSEEWQ 12

RESULT 23
 ID R38964 standard; Protein; 69 AA.
 AC R38964;
 DT 23-NOV-1993 (first entry)
 DE LD78 Leu2>Gln.
 KW SCI; stem cell inhibition; LD78; ACT2; MIP-1alpha;
 KW macrophage inflammatory protein; multimer; tumour therapy;
 KW psoriasis; hyperproliferation.
 OS Homo sapiens.
 PN W09313206-A.
 PD 08-JUL-1993.
 PF 23-DEC-1992; G02390.
 PR 23-DEC-1991; GB-027319.
 PR 14-OCT-1992; GB-021587.
 PA (BRBI-) BRITISH BIO-TECHNOLOGY LTD.
 PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
 PI Hunter MG;
 DR WPI: 93-227322/28.
 PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
 alpha - unable to form stable multimer higher than dodecamer,
 PS providing better tissue penetration
 PS Example 39; Page 64; 294pp; English.
 CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-
 1alpha, having mutations to prevent or reduce multimer formation
 CC beyond certain stages (e.g. dodecamer), have improved solution
 CC properties leading to enhanced productivity and greater therapeutic
 CC utility as stem cell protective agents. The analogues may be used
 CC in tumour therapy, psoriasis or other diseases involving hyper-
 CC proliferative stem cells.
 CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with
 CC Gln18>Gln) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha
 CC analogues correspond to the pref. LD78 analogues.
 SQ Sequence 69 AA;

Query Match 94.6%; Score 87; DB 7; Length 69;
 Best Local Similarity 83.3%; Pred. No. 1.51e-01;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 48 gvcadpseewq 59
 :|||||
 QY 1 EICADPSEEWQ 12

RESULT 24
 ID R38953 standard; Protein; 69 AA.
 AC R38953;
 DT 23-NOV-1993 (first entry)
 DE LD78 Asp26>Ser.
 KW SCI; stem cell inhibition; LD78; ACT2; MIP-1alpha;
 KW macrophage inflammatory protein; multimer; tumour therapy;
 KW psoriasis; hyperproliferation.
 OS Homo sapiens.
 PN W09313206-A.
 PD 08-JUL-1993.
 PF 23-DEC-1992; G02390.
 PR 23-DEC-1991; GB-027319.
 PR 14-OCT-1992; GB-021587.
 PA (BRBI-) BRITISH BIO-TECHNOLOGY LTD.
 PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
 PI Hunter MG;
 DR WPI: 93-227322/28.
 PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
 alpha - unable to form stable multimer higher than dodecamer,
 PS providing better tissue penetration
 PS Example 40; Page 64-65; 294pp; English.
 CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-
 1alpha, having mutations to prevent or reduce multimer formation
 CC beyond certain stages (e.g. dodecamer), have improved solution
 CC properties leading to enhanced productivity and greater therapeutic
 CC utility as stem cell protective agents. The analogues may be used
 CC in tumour therapy, psoriasis or other diseases involving hyper-
 CC proliferative stem cells.
 CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with
 CC Gln18>Gln) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha
 CC analogues correspond to the pref. LD78 analogues.
 SQ Sequence 69 AA;

PT providing better tissue penetration.
PS Example 28; Page 60; 294pp; English.
CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-1alpha, having mutations to prevent or reduce multimer formation beyond certain stages (e.g. dodecamer), have improved solution properties leading to enhanced productivity and greater therapeutic utility as stem cell protective agents. The analogues may be used in tumour therapy, psoriasis or other diseases involving hyperproliferative stem cells.
CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with CC Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha CC analogues correspond to the pref. LD78 analogues.
SQ Sequence 69 AA;

Query Match 94.6%; Score 87; DB 7; Length 69;
Best Local Similarity 83.3%; Pred. No. 1.51e-01;
Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 48 qvcadpsewvq 59
:|||||
1 EICADPSEWVQ 12

RESULT 25
ID R38970 standard; Protein; 69 AA.
AC R38970; (first entry)
DT 23-NOV-1993
DE LD78 Leu2>Ala.
KW SCI: stem cell inhibition; LD78; ACT2; MIP-1alpha;
KM macrophage inflammatory protein; multimer; tumour therapy;
KW psoriasis; hyperproliferation.
OS Homo sapiens.
PN WO9313206-A.
PD 08-JUL-1993.
PF 23-DEC-1992; G02390.
PR 23-DEC-1991; GB-027319.
PR 14-OCT-1992; GB-021587.
PA (BRBI-) BRITISH BIO-TECHNOLOGY LTD.
PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
PI Hunter MG;
DR WPI: 93-227322/28.
PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1 alpha - unable to form stable multimer higher than dodecamer.
PS Providing better tissue penetration.
PS Example 45; Page 66; 294pp; English.
CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-1alpha, having mutations to prevent or reduce multimer formation beyond certain stages (e.g. dodecamer), have improved solution properties leading to enhanced productivity and greater therapeutic utility as stem cell protective agents. The analogues may be used in tumour therapy, psoriasis or other diseases involving hyperproliferative stem cells.
CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with CC Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha CC analogues correspond to the pref. LD78 analogues.
SQ Sequence 69 AA;

Query Match 94.6%; Score 87; DB 7; Length 69;
Best Local Similarity 83.3%; Pred. No. 1.51e-01;
Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 48 qvcadpsewvq 59
:|||||
1 EICADPSEWVQ 12

RESULT 26
ID R38969 standard; Protein; 69 AA.
AC R38969; (first entry)
DT 23-NOV-1993
DE LD78 Ser46>Ala.
KW SCI: stem cell inhibition; LD78; ACT2; MIP-1alpha;
KM macrophage inflammatory protein; multimer; tumour therapy;

KW psoriasis; hyperproliferation.
OS Homo sapiens.
PN WO9313206-A.
PD 08-JUL-1993.
PF 23-DEC-1992; G02390.
PR 23-DEC-1991; GB-027319.
PR 14-OCT-1992; GB-021587.
PA (BRBI-) BRITISH BIO-TECHNOLOGY LTD.
PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
PI Hunter MG;
DR WPI: 93-227322/28.
PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1 alpha - unable to form stable multimer higher than dodecamer.
PS Providing better tissue penetration.
PS Example 44; Page 66; 294pp; English.
CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-1alpha, having mutations to prevent or reduce multimer formation beyond certain stages (e.g. dodecamer), have improved solution properties leading to enhanced productivity and greater therapeutic utility as stem cell protective agents. The analogues may be used in tumour therapy, psoriasis or other diseases involving hyperproliferative stem cells.
CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with CC Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha CC analogues correspond to the pref. LD78 analogues.
SQ Sequence 69 AA;

Query Match 94.6%; Score 87; DB 7; Length 69;
Best Local Similarity 83.3%; Pred. No. 1.51e-01;
Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 48 qvcadpsewvq 59
:|||||
1 EICADPSEWVQ 12

RESULT 27
ID R38976 standard; Protein; 69 AA.
AC R38976; (first entry)
DT 23-NOV-1993
DE LD78 Asp5>Ser.
KW SCI: stem cell inhibition; LD78; ACT2; MIP-1alpha;
KM macrophage inflammatory protein; multimer; tumour therapy;
KW psoriasis; hyperproliferation.
OS Homo sapiens.
PN WO9313206-A.
PD 08-JUL-1993.
PF 23-DEC-1992; G02390.
PR 23-DEC-1991; GB-027319.
PR 14-OCT-1992; GB-021587.
PA (BRBI-) BRITISH BIO-TECHNOLOGY LTD.
PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
PI Hunter MG;
DR WPI: 93-227322/28.
PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1 alpha - unable to form stable multimer higher than dodecamer.
PS Providing better tissue penetration.
PS Example 51; Page 68-69; 294pp; English.
CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-1alpha, having mutations to prevent or reduce multimer formation beyond certain stages (e.g. dodecamer), have improved solution properties leading to enhanced productivity and greater therapeutic utility as stem cell protective agents. The analogues may be used in tumour therapy, psoriasis or other diseases involving hyperproliferative stem cells.
CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with CC Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha CC analogues correspond to the pref. LD78 analogues.
SQ Sequence 69 AA;

Query Match 94.6%; Score 87; DB 7; Length 69;
Best Local Similarity 83.3%; Pred. No. 1.51e-01;
Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 48 qvcadpseewq 59
 :|||||
 1 EICADPSEEWQ 12

RESULT 28
 ID R39092 standard; Protein: 69 AA.
 AC R39092;
 DT 23-NOV-1993 (first entry)
 DE LD78 Ser12>Ala.
 KM SCT: stem cell inhibition; LD78; ACT2; MIP-1alpha;
 KW macrophage inflammatory protein; multimer; tumour therapy;
 KM psoriasis; hyperproliferation.
 OS Homo sapiens.
 PN W09313206-A.
 PD 08-JUL-1993.
 PF 23-DEC-1992; G02390.
 PR 23-DEC-1991; GB-027319.
 PR 14-OCT-1992; GB-021587.
 PA (BRBT-) BRITISH BIO-TECHNOLOGY LTD.
 PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
 PI Hunter MG;
 DR WPI: 93-227322/28.
 PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
 PT alpha - unable to form stable multimer higher than dodecamer,
 PS providing better tissue penetration
 PS Example 70; Page 75; 294pp; English.
 CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-
 CC 1alpha, having mutations to prevent or reduce multimer formation
 CC beyond certain stages (e.g. dodecamer); have improved solution
 CC properties leading to enhanced productivity and greater therapeutic
 CC utility as stem cell protective agents. The analogues may be used
 CC in tumour therapy, psoriasis or other diseases involving hyper-
 CC proliferative stem cells.
 CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with
 CC Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha
 CC analogues correspond to the pref. LD78 analogues.
 SQ Sequence 69 AA;

Query Match 94.6%; Score 87; DB 7; Length 69;
 Best Local Similarity 83.3%; Pred. No. 1.51e-01;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 48 qvcadpseewq 59
 :|||||
 1 EICADPSEEWQ 12

RESULT 29
 ID R39090 standard; Protein: 69 AA.
 AC R39090;
 DT 23-NOV-1993 (first entry)
 DE LD78 Tyr61>Ala.
 KM SCT: stem cell inhibition; LD78; ACT2; MIP-1alpha;
 KW macrophage inflammatory protein; multimer; tumour therapy;
 KM psoriasis; hyperproliferation.
 OS Homo sapiens.
 PN W09313206-A.
 PD 08-JUL-1993.
 PF 23-DEC-1992; G02390.
 PR 23-DEC-1991; GB-027319.
 PR 14-OCT-1992; GB-021587.
 PA (BRBT-) BRITISH BIO-TECHNOLOGY LTD.
 PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
 PI Hunter MG;
 DR WPI: 93-227322/28.
 PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
 PT alpha - unable to form stable multimer higher than dodecamer,
 PS providing better tissue penetration
 PS Example 68; Page 75; 294pp; English.
 CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-
 CC 1alpha, having mutations to prevent or reduce multimer formation

CC beyond certain stages (e.g. dodecamer), have improved solution
 CC properties leading to enhanced productivity and greater therapeutic
 CC utility as stem cell protective agents. The analogues may be used
 CC in tumour therapy, psoriasis or other diseases involving hyper-
 CC proliferative stem cells.
 CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with
 CC Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha
 CC analogues correspond to the pref. LD78 analogues.
 SQ Sequence 69 AA;

Query Match 94.6%; Score 87; DB 7; Length 69;
 Best Local Similarity 83.3%; Pred. No. 1.51e-01;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 48 qvcadpseewq 59
 :|||||
 1 EICADPSEEWQ 12

RESULT 30
 ID R39088 standard; Protein: 69 AA.
 AC R39088;
 DT 23-NOV-1993 (first entry)
 DE LD78 Ser1>Ala.
 KM SCT: stem cell inhibition; LD78; ACT2; MIP-1alpha;
 KW macrophage inflammatory protein; multimer; tumour therapy;
 KM psoriasis; hyperproliferation.
 OS Homo sapiens.
 PN W09313206-A.
 PD 08-JUL-1993.
 PF 23-DEC-1992; G02390.
 PR 23-DEC-1991; GB-027319.
 PR 14-OCT-1992; GB-021587.
 PA (BRBT-) BRITISH BIO-TECHNOLOGY LTD.
 PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
 PI Hunter MG;
 DR WPI: 93-227322/28.
 PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
 PT alpha - unable to form stable multimer higher than dodecamer,
 PS providing better tissue penetration
 PS Example 66; Page 74; 294pp; English.
 CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-
 CC 1alpha, having mutations to prevent or reduce multimer formation
 CC beyond certain stages (e.g. dodecamer); have improved solution
 CC properties leading to enhanced productivity and greater therapeutic
 CC utility as stem cell protective agents. The analogues may be used
 CC in tumour therapy, psoriasis or other diseases involving hyper-
 CC proliferative stem cells.
 CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with
 CC Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha
 CC analogues correspond to the pref. LD78 analogues.
 SQ Sequence 69 AA;

Query Match 94.6%; Score 87; DB 7; Length 69;
 Best Local Similarity 83.3%; Pred. No. 1.51e-01;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 48 qvcadpseewq 59
 :|||||
 1 EICADPSEEWQ 12

Search completed: Thu Apr 1 07:41:20 1999
 Job time : 28 secs.


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97 50 54.3 1463 2 A53210 phospholipase A2 rece 6.19e+01
98 50 54.3 1463 2 A56395 secretory phospholipa 6.19e+01
99 50 54.3 6805 2 S20901 titin - rabbit (fragm 6.19e+01
100 50 54.3 26926 1 I38344 titin, cardiac muscle 6.19e+01

ALIGNMENTS

RESULT 1
ENTRY A30574 #type complete
TITLE macrophage inflammatory protein 1-alpha precursor - human
ALTERNATE_NAMES LD78-alpha protein precursor; lymphocyte tumor
promoter-induced protein; macrophage inflammatory protein
homolog GOS19-1; MIP-1alpha; PAT464; small inducible
cytokine A3; T-cell activation protein 1
ORGANISM #formal_name Homo sapiens #common_name man
DATE 03-Aug-1992 #sequence_revision 03-Aug-1992 #text_change
29-May-1998
ACCESSIONS A35673; A30574; A30412; A24198; A30908
REFERENCE A35673
#authors Nakao, M.; Nomiyama, H.; Shimada, K.
#journal Mol. Cell. Biol. (1990) 10:3646-3658
#title Structures of human genes coding for cytokine LD78 and their
expression.
#cross-references MUID:90287155
#accession A35673
#molecule_type DNA
#status preliminary
#residues 1-92 ##label NAK
REFERENCE ##cross-references GB:D90144; NID:g219905; PID:d1014875; PID:g219906
A30574
#authors Zipfel, P.F.; Balke, J.; Irving, S.G.; Kelly, K.; Stephenist,
U.
#journal J. Immunol. (1989) 142:1582-1590
#title Mitogenic activation of human T cells induces two closely
related genes which share structural similarities with a
new family of secreted factors.
#cross-references MUID:89140347
#accession A30574
#molecule_type mRNA
#status preliminary
#residues 1-92 ##label ZIP
REFERENCE ##cross-references GB:M25315; NID:g602452; PID:g602453
A30412
#authors Blum, S.; Forsdyke, R.E.; Forsdyke, D.R.
#journal DNA Cell Biol. (1990) 9:589-602
#title Three human homologs of a murine gene encoding an inhibitor
of stem cell proliferation.
#cross-references MUID:91103879
#accession A30412
#molecule_type mRNA
#status preliminary
#residues 1-92 ##label BLU
REFERENCE A24198
#authors Obaru, K.; Fukuda, M.; Maeda, S.; Shimada, K.
#journal J. Biochem. (1986) 99:885-894
#title A cDNA clone used to study mRNA inducible in human tonsillar
lymphocytes by a tumor promoter.
#cross-references MUID:86223879
#accession A24198
#molecule_type mRNA
#status preliminary
#residues 1-92 ##label OBA

GENETICS
#gene GDB:SCYA3
##cross-references GDB:120368; OMIM:182283
#map_position 17q11-17q21
CLASSIFICATION #superfamily macrophage inflammatory protein
FEATURE
1-20 #domain signal sequence #status predicted #label SIG\
21-92 #product macrophage inflammatory protein 1-alpha #status
predicted #label MARY\
33-57,34-73 #disulfide_bonds #status predicted
SUMMARY #length 92 #molecular_weight 10085 #checksum 4316
Query Match 94.6%; Score 87; DB 2; Length 92;

```

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Best Local Similarity 83.3%; Pred. No. 6.80e-06;
Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 71 QVCADPSEEWQ 82
:|||||
QY 1 EICADPSEEWQ 12

RESULT 2
ENTRY B35673 #type complete
TITLE LD78-beta protein precursor - human
ALTERNATE_NAMES macrophage inflammatory protein homolog GOS19-2; small
inducible cytokine A4
ORGANISM #formal_name Homo sapiens #common_name man
DATE 28-Sep-1990 #sequence_revision 28-Sep-1990 #text_change
24-Sep-1998
ACCESSIONS B35673; B30412; S10157; B30908
REFERENCE B35673
#authors Nakao, M.; Nomiyama, H.; Shimada, K.
#journal Mol. Cell. Biol. (1990) 10:3646-3658
#title Structures of human genes coding for cytokine LD78 and their
expression.
#cross-references MUID:90287155
#accession B35673
#molecule_type DNA
#status preliminary
#residues 1-93 ##label NAK
REFERENCE ##cross-references GB:D90145; NID:g219907; PID:d1014876; PID:g219908
A30412
#authors Blum, S.; Forsdyke, R.E.; Forsdyke, D.R.
#journal DNA Cell Biol. (1990) 9:589-602
#title Three human homologs of a murine gene encoding an inhibitor
of stem cell proliferation.
#cross-references MUID:91103879
#accession B30412
#molecule_type DNA
#status preliminary; not compared with conceptual translation
#residues 1-93 ##label BLU
REFERENCE ##cross-references GB:M24110; GB:M32338; NID:g182848; PID:g182849
S10157
#authors Irving, S.G.; Zipfel, P.F.; Balke, J.; McBride, O.W.; Morton,
C.C.; Burg, P.R.; Stephenist, U.; Kelly, K.
#journal Nucleic Acids Res. (1990) 18:3261-3270
#title Two inflammatory mediator cytokine genes are closely linked
and variably amplified on chromosome 17q.
#cross-references MUID:90287702
#accession S10157
#molecule_type mRNA
#status preliminary
#residues 1-93 ##label IRV
REFERENCE ##cross-references EMBL:X52149; NID:g34750; PID:g296666
COMMENT This protein is a member of a "small inducible" or "activation
specific" gene family, is likely to be an early-acting
interleukin, and is the product of a putative G0/G1 switch gene.

GENETICS
#gene GDB:SCYA4
##cross-references GDB:120369; OMIM:182284
#map_position 17q11-17q21
#introns 26/1; 64/2
CLASSIFICATION #superfamily macrophage inflammatory protein
FEATURE cytokine
1-22 #domain signal sequence #status predicted #label SIG\
23-93 #product LD78-beta protein #status predicted #label MAR
SUMMARY #length 93 #molecular_weight 10161 #checksum 7784
Query Match 94.6%; Score 87; DB 2; Length 93;
Best Local Similarity 83.3%; Pred. No. 6.80e-06;
Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 72 QVCADPSEEWQ 83
:|||||
QY 1 EICADPSEEWQ 12

```

RESULT 3
ENTRY S07723 #type complete
TITLE Immediate-early serum-responsive protein JE - rat
ALTERNATE_NAMES monocyte-chemoattractant protein-1
ORGANISM #formal_name Rattus norvegicus #common_name Norway rat
DATE 29-Jan-1993 #sequence_revision 29-Jan-1993 #text_change 08-Sep-1997

ACCESSIONS S07723; JN0128
REFERENCE S07723
#authors Timmers, H.T.M.; Pronk, G.J.; Bos, J.L.; van der Eb, A.J.
#journal Nucleic Acids Res. (1990) 18:23-34
#title Analysis of the rat JE gene promoter identifies an AP-1 binding site essential for basal expression but not for TPA induction.
#cross-references MUID:90174947
#accession S07723
##molecule_type DNA
##residues 1-148 ##label TIM
#cross-references EMBL:X17053; NID:955530; PID:955531

REFERENCE JN0128
#authors Yoshimura, T.; Takeya, M.; Takahashi, K.
#journal Biochem. Biophys. Res. Commun. (1991) 174:504-509
#title Molecular cloning of rat monocyte chemoattractant protein-1 (MCP-1) and its expression in rat spleen cells and tumor cell lines.
#cross-references MUID:91128376
#accession JN0128
##molecule_type mRNA
##residues 1-148 ##label YOS
#cross-references GB:M57441; NID:9205333; PID:9205334
#experimental_source spleen cells
#note the authors translated the codon GAA for residue 62 as lys and GCT for residue 63 as leu

GENETICS 26/1: 65/2
CLASSIFICATION #superfamily macrophage inflammatory protein
FEATURE 1-23
24-148 #domain signal sequence #status predicted #label SIG
#product immediate-early serum-responsive protein JE
#status predicted #label MAT
SUMMARY #length 148 #molecular-weight 16460 #checksum 4876

Query Match 89.1%; Score 82; DB 2; Length 148;
Best Local Similarity 83.3%; Pred. No. 7.39e-05;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

DB 73 EICADPNKEWVQ 84
OY 1 EICADPSEEWVQ 12

RESULT 4
ENTRY C60407 #type fragment
TITLE monocyte adherence-induced protein 5 beta - human (fragment)
ORGANISM #formal_name Homo sapiens #common_name man
DATE 06-Nov-1992 #sequence_revision 06-Nov-1992 #text_change 03-May-1996

ACCESSIONS C60407
REFERENCE A60407
#authors Sporn, S.A.; Eberman, D.F.; Johnson, C.E.; Morris, J.; Martin, G.; Ladner, M.; Haskill, S.
#journal J. Immunol. (1990) 144:4434-4441
#title Monocyte adherence results in selective induction of novel genes sharing homology with mediators of inflammation and tissue repair.
#cross-references MUID:90257367
#accession C60407
##status preliminary; not compared with conceptual translation
##molecule_type mRNA
##residues 1-50 ##label SPO
CLASSIFICATION #superfamily macrophage inflammatory protein

SUMMARY #length 50 #checksum 9927
Query Match 87.0%; Score 80; DB 2; Length 50;
Best Local Similarity 75.0%; Pred. No. 1.89e-04;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

DB 30 QVCADPSESWEVQ 41
OY 1 EICADPSEEWVQ 12

RESULT 5
ENTRY A31767 #type complete
TITLE macrophage inflammatory protein 1-beta precursor - human
ALTERNATE_NAMES cytokine HC1; G-26 protein; H400 homolog; lymphocyte activation gene 1 protein (LAG-1); MIP-1beta; PAR744; SCYA2 protein (misidentification); SIS gamma homolog; T-cell activation protein 2 (Act-2); T-cell activation protein gamma

ORGANISM #formal_name Homo sapiens #common_name man
DATE 07-Jun-1990 #sequence_revision 29-May-1998 #text_change 29-May-1998

ACCESSIONS JH0319; A40978; A31767; A37411; B30574; B45817; D30552
REFERENCE JH0319
#authors Balceras, E.; Roman-Roman, S.; Jitsukawa, S.; Genevee, C.; Mechiche, S.; Viegas-Pequignot, E.; Hercend, T.; Trilebel, F.
#journal Mol. Immunol. (1990) 27:1091-1102
#title Cloning and expression of a lymphocyte activation gene (LAG-1)
#cross-references MUID:91061800
#accession JH0319
##status translation not shown
##molecule_type DNA
##residues 1-92 ##label BAI
#cross-references GB:X53682; NID:934217; PID:934218
#experimental_source natural killer cell, strain CD3-CD2+, F5, STILES A40978

REFERENCE A40978
#authors Napolitano, M.; Modi, W.S.; Cevalario, S.J.; Gnarr, J.R.; Senanez, H.N.; Leonard, W.J.
#journal J. Biol. Chem. (1991) 266:17531-17536
#title The gene encoding the Act-2 cytokine. Genomic structure, HIV-1/tax responsiveness of 5' upstream sequences, and chromosomal localization.
#cross-references MUID:91373378
#accession A40978
##molecule_type DNA
##residues 1-14,'S',16-69,'G',71-92 ##label NAP
#cross-references GB:M69201; NID:9178021
#note 15-Ala was also found

REFERENCE A31767
#authors Lipas, M.A.; Napolitano, M.; Jeang, K.T.; Chang, N.T.; Leonard, W.J.
#journal Proc. Natl. Acad. Sci. U.S.A. (1988) 85:9704-9708
#title Identification, cloning, and characterization of an immune activation gene.
#cross-references MUID:89071764
#accession A31767
##molecule_type mRNA
##residues 1-92 ##label LIP
#cross-references GB:J04130; NID:9178017; PID:9178018

REFERENCE A37411
#authors Chang, H.C.; Reinherz, E.L.; Eur. J. Immunol. (1989) 19:1045-1051
#title Isolation and characterization of a cDNA encoding a putative cytokine which is induced by stimulation via the CD2 structure on human T lymphocytes.
#cross-references MUID:89325421
#accession A37411
##molecule_type mRNA
##residues 1-92 ##label CHA
#cross-references GB:X16166; NID:932035; PID:932036
REFERENCE A30574

```

#authors Zipfel, P.F.; Balke, J.; Irving, S.G.; Kelly, K.; Siebenlist,
#journal U.
#title Mitogenic activation of human T cells induces two closely
related genes which share structural similarities with a
new family of secreted factors.
#cross-references MUID:89140347
#accession B30574
##molecule-type mRNA
##residues 1-19, 'L', 21-92 ##label ZIP
##cross-references GB:M25316; NID:9602454; PID:9602455
REFERENCE
#authors Miller, M.D.; Hata, S.; Malefyt, R.D.W.; Krangel, M.S.
#journal J. Immunol. (1989) 143:2907-2916
#title A novel polypeptide secreted by activated human T
lymphocytes.
#cross-references MUID:90038522
#accession B45817
##molecule-type mRNA
##residues 7-55, 'I', 57-79, 'T', 81-92 ##label MIL
##cross-references GB:M57503; NID:9339726; PID:9339727
REFERENCE
#authors Brown, K.D.; Zurawski, S.M.; Mosmann, T.R.; Zurawski, G.
#journal J. Immunol. (1989) 142:679-687
#title A family of small inducible proteins secreted by leukocytes
are members of a new superfamily that includes leukocyte
and fibroblast-derived inflammatory agents, growth factors,
and indicators of various activation processes.
#cross-references MUID:89093958
#accession D30552
##molecule-type mRNA
##residues 1-39, 'REASS', 46-92 ##label BRO
##cross-references GB:M23502; NID:9533212; PID:9533213
REFERENCE
#authors Cloze, G.M.; Lodi, P.J.; Garrett, D.S.; Gronenborn, A.M.
#submission Submitted to the Brookhaven Protein Data Bank, January 1994
#cross-references PDB:1H0M
#contents annotation: conformation and disulfide bond assignments by
(1)H-NMR, residues 24-92
COMMENT This protein is secreted by activated lymphocytes and monocytes. It
is bound by chemokine (C-C) receptor 5 (see PIR:A43113) and
receptor 1 (see PIR:A45177).
GENETICS
#gene GDB:LAG1
##cross-references GDB:127451; OMIM:153335
#map-position 17q21-17q21
#introns 26/1; 64/2
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS chemotaxis; cytokine; inflammation
FEATURE
1-23 #domain signal sequence #status predicted #label SIG\
24-92 #product macrophage inflammatory protein 1-beta #status
experimental #label MAT\
#disulfide bonds #status experimental
SUMMARY 34-58,35-74 #length 92 #molecular-weight 10212 #checksum 7597
Query Match 87.0%; Score 80; DB 1; Length 92;
Best Local Similarity 75.0%; Pred. No. 1.89e-04;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
Db 72 QVCADPSESWQ 83
QY 1 EICADPSESWQ 12
RESULT 6
ENTRY A54678 #type complete
TITLE monocyte chemotactic protein 3 precursor - human
ALTERNATE_NAMES #formal_name Homo sapiens #common_name man
ORGANISM 28-Oct-1994 #sequence_revision 28-Oct-1994 #text_change
DATE 24-Sep-1998
ACCESSIONS A54678; JCI478; S32222

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REFERENCE
#authors A54678
#journal Opdenacker, G.; Fiten, P.; Nys, G.; Froyen, G.; Van Roy, N.;
Speleman, F.; Laureys, G.; Van Damme, J.
#title Genomics (1994) 21:403-408
The human MCP-3 gene (SCYA7): cloning, sequence analysis, and
assignment to the C-C chemokine gene cluster on chromosome
17q11.2-q12.
#accession A54678
##molecule-type DNA
##residues 1-109 ##label OPD
##cross-references GB:X72309
REFERENCE
#authors Opdenacker, G.; Froyen, G.; Fiten, P.; Proost, P.; Van Damme,
J.
#journal Biochem. Biophys. Res. Commun. (1993) 191:535-542
#title Human monocyte chemotactic protein-3 (MCP-3): Molecular
cloning of the cDNA and comparison with other chemokines.
#accession JCI478
#cross-references MUID:90038522
##molecule-type mRNA
##residues 1-109 ##label OP2
REFERENCE
#authors Minty, A.; Chalon, P.; Guillemot, J.C.; Kagnad, M.; Liauzun,
P.; Magazian, M.; Miloux, B.; Minty, C.; Ramond, P.; Vita,
N.; Lupker, J.; Shire, D.; Ferrara, P.; Caput, D.
#submission Submitted to the EMBL Data Library, March 1993
#description Molecular cloning of MCP-3: a human monocyte-derived monocyte
chemotactic protein.
#accession S32222
#cross-references MUID:90038522
##molecule-type mRNA
##residues 1-109 ##label MIN
##cross-references EMBL:X71087; NID:9288396; PID:9288397
COMMENT This protein induces proteinase secretion and chemotaxis by
macrophages and monocytes.
GENETICS
#gene GDB:SCYA7; SCYA6; MCP-3
##cross-references GDB:138473; OMIM:158106
#map-position 17q11-17q12
#introns 36/1; 75/2
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS cytokine; glycoprotein; inflammation
FEATURE
1-33 #domain signal sequence #status predicted #label SIG\
34-109 #product monocyte chemotactic protein 3 #status
predicted #label MAT\
#binding-site carbohydrate (Asn) (covalent) #status
predicted
SUMMARY 39 #length 109 #molecular-weight 12356 #checksum 1535
Query Match 87.0%; Score 80; DB 2; Length 109;
Best Local Similarity 75.0%; Pred. No. 1.89e-04;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
Db 83 EICADPQKRWQ 94
QY 1 EICADPSESWQ 12
RESULT 7
ENTRY JE0177 #type complete
TITLE lymphocyte and monocyte chemottractant CC chemokine - human
ALTERNATE_NAMES #formal_name Homo sapiens #common_name man
ORGANISM 10-Jul-1998 #sequence_revision 10-Jul-1998 #text_change
DATE 10-Jul-1998
ACCESSIONS JE0177
REFERENCE
#authors Youn, B.S.; Zhang, S.; Broxmeyer, H.E.; Antol, K.; Fraser
Jr., M.J.; Hangoc, G.; Kwon, B.S.
#journal Biochem. Biophys. Res. Commun. (1998) 247:217-222
#title Isolation and characterization of lmc, a novel lymphocyte and
monocyte chemottractant human CC chemokine, with
myeloid suppressive activity.
#accession JE0177
##molecule-type mRNA

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##residues 1-120 ##label YOU
SUMMARY #length 120 #molecular-weight 13600 #checksum 230
Query Match 87.0%; Score 80; DB 2; Length 120;
Best Local Similarity 50.0%; Pred. No. 1.89e-04;
Matches 6; Conservative 6; Mismatches 0; Indels 0; Gaps 0;
Db 74 EVCINPNDWVQ 85
1 EICADPSEWVQ 12
OY 1 EICADPSEWVQ 12

RESULT 8
ENTRY 148147 #type complete
TITLE monocyte chemoattractant protein-1 - guinea pig
ORGANISM #formal_name Cavia porcellus #common_name guinea pig
DATE 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 09-May-1997

ACCESSIONS 148147
REFERENCE 148147
#authors Yoshimura, T.
#journal J. Immunol. (1993) 150:5025-5032
#title cDNA cloning of guinea pig monocyte chemoattractant protein-1 and expression of the recombinant protein.
#cross-references MIMD:93267104
#accession I48147
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-120 #label RES
#cross-references GB:I04985; NID:g349820; PID:g349821

GENETICS
#gene MCP-1
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 120 #molecular-weight 13741 #checksum 9252

Query Match 84.8%; Score 78; DB 2; Length 120;
Best Local Similarity 66.7%; Pred. No. 4.80e-04;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;
Db 71 EVCADPTOKWVQ 82
1 EICADPSEWVQ 12
OY 1 EICADPSEWVQ 12

RESULT 9
ENTRY A30209 #type complete
TITLE PDGF-inducible JE glycoprotein precursor - mouse
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE 01-Dec-1989 #sequence_revision 01-Dec-1989 #text_change 01-May-1998
A30209; A44771; A30861
A30209
#authors Rollins, B.J.; Morrison, E.D.; Stiles, C.D.
#journal Proc. Natl. Acad. Sci. U.S.A. (1988) 85:3738-3742
#title Cloning and expression of JE, a gene inducible by platelet-derived growth factor and whose product has cytokine-like properties.
#cross-references MIMD:88234501
#accession A30209
#molecule_type DNA
#residues 1-148 #label ROL
#cross-references GB:M19681; NID:g193486; PID:g387168; GB:M19682
A44771
#authors Kawahara, R.S.; Deuel, T.F.
#journal J. Biol. Chem. (1989) 264:679-682
#title Platelet-derived growth factor-inducible gene JE is a member of a family of small inducible genes related to platelet factor 4.
#accession A44771
#molecule_type DNA; mRNA
#residues 1-148 #label KA2
#cross-references GB:J04467; NID:g193488; PID:g387169

GENETICS

#gene JE
#introns 26/1; 65/2
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS cytokine; glycoprotein
FEATURE 126
#binding-site carbohydrate (Asn) (covalent) #status predicted
SUMMARY #length 148 #molecular-weight 16326 #checksum 5278

Query Match 84.8%; Score 78; DB 2; Length 148;
Best Local Similarity 75.0%; Pred. No. 4.80e-04;
Matches 9; Conservative 1; Mismatches 2; Indels 0; Gaps 0;
Db 73 EVCADPKKRWVQ 84
1 EICADPSEWVQ 12
OY 1 EICADPSEWVQ 12

RESULT 10
ENTRY 146730 #type complete
TITLE immune activation gene 2 - rabbit
ORGANISM #formal_name Oryctolagus cuniculus #common_name domestic rabbit
DATE 14-Feb-1997 #sequence_revision 14-Feb-1997 #text_change 09-May-1997

ACCESSIONS 146730
REFERENCE 146730
#authors Mori, S.; Goto, K.; Goto, F.; Mutakami, K.; Ohkawara, S.; Yoshinaga, M.
#journal Int. Immunol. (1994) 6:149-156
#title Dynamic changes in mRNA expression of neutrophils during the course of acute inflammation in rabbits.
#cross-references MIMD:94198229
#accession I46730
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-92 #label MOR
#cross-references GB:D17402; NID:g599577; PID:g599578

CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 92 #molecular-weight 10066 #checksum 5637

Query Match 83.7%; Score 77; DB 2; Length 92;
Best Local Similarity 66.7%; Pred. No. 7.62e-04;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;
Db 72 QVCANPSEWVQ 83
1 EICADPSEWVQ 12
OY 1 EICADPSEWVQ 12

RESULT 11
ENTRY A60299 #type complete
TITLE monocyte chemoattractant protein 1 precursor - human
ALTERNATE_NAMES GDCF-1; glioma-derived monocyte chemotactic factor 1; MCAF; MCP-1; monocyte chemotactic factor 1; monocyte secretory protein; tumor-derived chemotactic factor
ORGANISM #formal_name Homo sapiens #common_name man
DATE 20-Feb-1993 #sequence_revision 20-Feb-1993 #text_change 20-Mar-1998
A33474; A33476; S03339; I51841; A60299; A32300; A32396; A34561; I57488; JC1096
A33474
#authors Shyy, Y.J.; Li, Y.S.; Kolattukudy, P.E.
#journal Biochem. Biophys. Res. Commun. (1990) 169:346-351
#title Structure of human monocyte chemotactic protein gene and its regulation by TPA.
#cross-references MIMD:90290466
#accession A33474
#molecule_type DNA
#residues 1-99 #label SHY
#cross-references GB:M37719; NID:g187447; PID:g487124
A33476

REFERENCE

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#authors      Rollins, B.J.; Stier, P.; Ernst, T.; Wong, G.G.
#journal      Mol. Cell. Biol. (1989) 9:4687-4695
#title        The human homolog of the JR gene encodes a monocyte secretory
               protein.
#cross-references MUID:90097880
#accession    A33476
#molecule_type mRNA
#residues     1-99 ##label ROL
#cross-references GB:M30816; GB:M31625; GB:M31626; NID:q188701;
               PID:9386961
REFERENCE
#authors      S03339
#journal      Yoshimura, T.; Yunki, N.; Moore, S.K.; Appella, E.; Lerman,
               M.I.; Leonard, E.J.
#title        FEBS Lett. (1989) 244:487-493
               Human monocyte chemoattractant protein-1 (MCP-1). Full-length
               cDNA cloning, expression in mitogen-stimulated blood
               mononuclear leukocytes, and sequence similarity to mouse
               competence gene JE.
#cross-references MUID:89153605
#accession    S03339
#status       not compared with conceptual translation
#molecule_type mRNA
#residues     1-99 ##label YOS
#cross-references GB:X14768; NID:934513; PID:934514
#experimental_source glioma cell line U-105MG
REFERENCE
#authors      Yoshimura, T.; Leonard, E.J.
#journal      Adv. Exp. Med. Biol. (1991) 305:47-56
#title        Human monocyte chemoattractant protein-1 (MCP-1).
               #cross-references MUID:92095166
#accession    I51841
#status       preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues     1-99 ##label Y02
#cross-references GB:S71513; NID:9240867; PID:9240868
REFERENCE
#authors      Bottazzi, B.; Colotta, F.; Sica, A.; Nobili, N.; Mantovani,
               A.
#journal      Int. J. Cancer (1990) 45:795-797
#title        A chemoattractant expressed in human sarcoma cells
               (tumor-derived chemotactic factor, TDCF) is identical to
               monocyte chemoattractant protein-1/monocyte chemotactic and
               activating factor (MCP-1/MCAF).
#accession    A60299
#status       not compared with conceptual translation
#molecule_type mRNA
#residues     1-99 ##label BOT
REFERENCE
#authors      Fututani, Y.; Nomura, H.; Notake, M.; Oyama, Y.; Fukui, T.;
               Yamada, M.; Larsen, C.G.; Oppenheim, J.J.; Matsushima, K.
#journal      Biochem. Biophys. Res. Commun. (1989) 159:249-255
#title        Cloning and sequencing of the cDNA for human monocyte
               chemotactic and activating factor (MCAF).
#cross-references MUID:89165862
#accession    A32300
#status       not compared with conceptual translation
#molecule_type mRNA
#residues     1-99 ##label FUR
#cross-references GB:M24545; NID:9187434; PID:9307163
REFERENCE
#authors      Robinson, E.A.; Yoshimura, T.; Leonard, E.J.; Tanaka, S.;
               Griffin, P.R.; Shabanowitz, J.; Hunt, D.F.; Appella, E.
#journal      Proc. Natl. Acad. Sci. U.S.A. (1989) 86:1850-1854
#title        Complete amino acid sequence of a human monocyte
               chemoattractant, a putative mediator of cellular immune
               reactions.
#cross-references MUID:89184525
#accession    A32396
#molecule_type protein
#residues     X', 25-99 ##label ROB
REFERENCE
#authors      Decock, B.; Conings, R.; Lenaerts, J.P.; Billiau, A.; Van
               Damme, J.
#journal      Biochem. Biophys. Res. Commun. (1990) 167:904-909
#title        Identification of the monocyte chemotactic protein from human
               osteosarcoma cells and monocytes: detection of a novel
               N-terminally processed form.
#cross-references MUID:90211336
#accession    A34561
#molecule_type protein
#residues     29-33, 'XX', 36-52; 82-92 ##label DEC
REFERENCE
#authors      Li, Y.S.; Shyy, Y.J.; Wright, J.G.; Valente, A.J.; Cornhill,
               J.F.; Kolattukudy, P.E.
#journal      Mol. Cell. Biochem. (1993) 126:61-68
#title        The expression of monocyte chemotactic protein (MCP-1) in
               human vascular endothelium in vitro and in vivo.
#cross-references MUID:94150478
#accession    I57488
#status       translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues     1-99 ##label LIY
#cross-references GB:569738; NID:9545464; PID:9545465
REFERENCE
#authors      Ye, Q.N.; Su, G.F.; Yuan, Y.; Huang, C.F.
#journal      Chinese J. Microbiol. Immunol. (1994) 14:29-32
#title        The PCR, cloning and sequencing of human monocyte
               chemoattractant protein-1 (MCP-1) gene.
#accession    JCI096
#molecule_type mRNA
#residues     24-28, 'Q', 30-99 ##label YEQ
GENETICS
#gene         GDB:SCYA2
#cross-references GDB:125279; OMIM:158105
#map_position 17q11.2-17q12
CLASSIFICATION
#superfamily macrophage inflammatory protein
#keywords     cytokine; glycoprotein; inflammation; pyroglutamic acid
#FEATURE
1-23
24-99
29-99
24
37
SUMMARY
#length 99 #molecular-weight 11025 #checksum 7984
Query Match      83.7%; Score 77; DB 2; Length 99;
Best Local Similarity 75.0%; Pred. No. 7.62e-04;
Matches 9; Conservative 1; Mismatches 2; Indels 0; Gaps 0;
Db 73 EICADPKQKWQ 84
      ||||| : |||
QY 1 EICADPSEEWQ 12
RESULT 12
ENTRY 152322 #type complete
TITLE macrophage inflammatory protein-1alpha - rat
ORGANISM #formal_name Rattus norvegicus #common_name Norway rat
DATE 29-May-1998 #sequence_revision 29-May-1998 #text_change 02-Jul-1998
ACCESSIONS 152322
REFERENCE 152322
#authors      Shi, M.M.; Godlaski, J.J.; Paulauskis, J.D.
#journal      Biochem. Biophys. Res. Commun. (1995) 211:289-295
#title        Molecular cloning and posttranscriptional regulation of
               macrophage inflammatory protein-1 alpha in alveolar
               macrophages.
#cross-references MUID:95298037
#accession    I52322
#status       preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues     1-92 ##label RES

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##cross-references EMBL:U22414; NID:9790632; PID:9790633
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 92 #molecular-weight 10335 #checksum 3184

Query Match      82.6%; Score 76; DB 2; Length 92;
Best Local Similarity 75.0%; Pred. No. 1,21e-03;
Matches 9; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db      71 QICADPKETWQ 82
      :|||||: |||
      1 EICADPSEEWQ 12

RESULT 13
ENTRY JC2136 #type complete
TITLE monocyte chemoattractant protein-1 precursor - pig
ORGANISM #formal_name Sus scrofa domestica #common_name domestic pig
DATE 30-Sep-1993 #sequence_revision 20-Aug-1994 #text_change
08-Sep-1997
ACCESSIONS JC2136; S57498
REFERENCE JC2136
#authors Hosang, K.; Knoke, I.; Klaudiny, J.; Wempe, F.; Wutke, W.;
#journal Scheit, K.H.
#title Biochem. Biophys. Res. Commun. (1994) 199:962-968
#molecule_type mRNA
#accession JC2136
#residues 1-99 #label HOS
#authors Zech, O.
#journal Submitted to the EMBL Data Library, July 1994
#accession S57497
#status preliminary
#molecule_type mRNA
#residues 1-99 #label ZAC
#cross-references EMBL:X79416; NID:9872312; PID:9872313
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS glycoprotein
FEATURES
1-23 #domain signal sequence #status predicted #label SIG\
24-99 #product monocyte chemoattractant protein-1 #status
#binding-site carbohydrate (Asn) (covalent) #status
predicted
SUMMARY #length 99 #molecular-weight 10976 #checksum 9768

Query Match      82.6%; Score 76; DB 2; Length 99;
Best Local Similarity 66.7%; Pred. No. 1,21e-03;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db      73 EICADPKOKWQ 84
      :|||||: |||
      1 EICADPSEEWQ 12

RESULT 14
ENTRY JC2417 #type complete
TITLE monocyte chemoattractant protein-2 - pig
ORGANISM #formal_name Sus scrofa domestica #common_name domestic pig
DATE 24-Feb-1995 #sequence_revision 24-Feb-1995 #text_change
03-May-1996
ACCESSIONS JC2417
REFERENCE JC2417
#authors Hosang, K.; Knoke, I.; Klaudiny, J.; Wempe, F.; Wutke, W.;
#journal Scheit, K.H.
#title Biochem. Biophys. Res. Commun. (1994) 205:148-153
#molecule_type mRNA
#accession JC2417

##residues 1-99 #label HOS
#experimental_source corpus luteum
CLASSIFICATION #superfamily macrophage inflammatory protein
FEATURES
1-23 #domain signal sequence #status predicted #label SIG\
24-99 #product monocyte chemoattractant protein-2 #status
#binding-site carbohydrate (Asn) (covalent) #status
predicted
SUMMARY #length 99 #molecular-weight 11114 #checksum 9401

Query Match      78.3%; Score 72; DB 2; Length 99;
Best Local Similarity 66.7%; Pred. No. 7,39e-03;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db      73 EICADPKOKWQ 84
      :|||||: |||
      1 EICADPSEEWQ 12

RESULT 16
ENTRY JC2336 #type complete
TITLE monocyte chemoattractant protein-1 - bovine
ORGANISM #formal_name Bos primigenius indicus #common_name zebu cattle
DATE 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change
03-May-1996
ACCESSIONS JC2336
REFERENCE JC2336
#authors Wempe, F.; Kuhlmann, J.K.; Scheit, K.H.
#journal Biochem. Biophys. Res. Commun. (1994) 202:1272-1279
#title Characterization of the bovine monocyte chemoattractant
#molecule_type mRNA
#accession JC2336
```

```
##molecule_type protein
##residues 1-99 ##label WEM
GENETICS
#gene MCP-1
#introns 26/1; 65/2
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 99 #molecular-weight 11114 #checksum 9401

Query Match 78.3%; Score 72; DB 2; Length 99;
Best Local Similarity 66.7%; Pred. No. 7.39e-03;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 73 EICADPSEWVQ 84
Oy 1 EICADPSEWVQ 12

RESULT 17
ENTRY C30552 #type complete
TITLE macrophage inflammatory protein 1-beta - mouse
ALTERNATE_NAMES H400; SIS gamma; T-cell activation protein gamma
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE 28-Aug-1989 #sequence_revision 28-Aug-1989 #text_change 20-Mar-1998
ACCESSIONS C30552; J10088; PS0304; S22042
REFERENCE A30552
#authors Brown, K.D.; Zurawski, S.M.; Mosmann, T.R.; Zurawski, G.
#journal J. Immunol. (1989) 142:679-687
#title A family of small inducible proteins secreted by leukocytes are members of a new superfamily that includes leukocyte and fibroblast-derived inflammatory agents, growth factors, and indicators of various activation processes.
#cross-references MUID:89093958
#accession C30552
#molecule_type mRNA
#residues 1-92 ##label BRO
#cross-references GB:M23503; NID:g533244; PID:g533245
J10088
#authors Sherry, B.; Tekamp-Olson, P.; Gallegos, C.; Bauer, D.; Davatelis, G.; Wolpe, S.D.; Mastarz, F.; Colt, D.; Ceramti, A.
#journal J. Exp. Med. (1988) 168:2251-2259
#title Resolution of the two components of macrophage inflammatory protein 1, and cloning and characterization of one of those components, macrophage inflammatory protein 1 beta.
#cross-references MUID:89067830
#accession J10088
#molecule_type mRNA
#residues 1-92 ##label SHE
#cross-references GB:M35590; NID:g199696; PID:g199697
PS0304
#molecule_type protein
#residues 24-33,'XX','X','X',38 ##label SH2
S22042
#authors Daubersies, P.; Lepretre, F.; Baillet, B.; Grove, M.; Pragnelli, I.; Plumb, M.
#submission submitted to the EMBL Data Library, October 1991
#description Sequence of the murine macrophage inflammatory protein 1b gene.
#accession S22042
#status preliminary
#molecule_type DNA
#residues 1-92 ##label DAT
#cross-references EMBL:X62502; NID:g53126; PID:g53127
COMMENT This protein is a monokine.
GENETICS
#introns 26/1; 64/2
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS glycoprotein
FEATURE 1-23 #domain signal sequence #status predicted #label SIG\
24-92 #product macrophage inflammatory protein 1-beta #status experimental #label MAT\
```

```
76 #binding site carbohydrate (Asn) (covalent) #status predicted
SUMMARY #length 92 #molecular-weight 10168 #checksum 7516

Query Match 77.2%; Score 71; DB 2; Length 92;
Best Local Similarity 72.7%; Pred. No. 1.15e-02;
Matches 8; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 72 QICANPSEPVV 82
Oy 1 EICADPSEWVQ 11

RESULT 18
ENTRY JN0841 #type complete
TITLE interleukin-8 - dog
ORGANISM #formal_name Canis lupus familiaris #common_name dog
DATE 19-May-1994 #sequence_revision 19-May-1994 #text_change 12-Apr-1995
ACCESSIONS JN0841
REFERENCE JN0841
#authors Ishikawa, J.; Suzuki, S.; Hotta, K.; Hirota, Y.; Mizuno, S.; Suzuki, K.
#journal Gene (1993) 131:305-306
#title Cloning of a canine gene homologous to the human interleukin-8-encoding gene.
#accession JN0841
#molecule_type DNA
#residues 1-95 ##label ISH
#cross-references MUID:89093958
COMMENT This protein is a polymorphonuclear leukocytes chemotactic factor and is involved in the host defense function.
GENETICS
#introns 22/1; 67/2
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 95 #molecular-weight 10611 #checksum 3157

Query Match 77.2%; Score 71; DB 2; Length 95;
Best Local Similarity 66.7%; Pred. No. 1.15e-02;
Matches 8; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

Db 75 EVCIDPKEKVVQ 86
Oy 1 EICADPSEWVQ 12

RESULT 19
ENTRY I46997 #type complete
TITLE interleukin-8 - sheep
ORGANISM #formal_name Ovis sp. #common_name sheep
DATE 21-Feb-1997 #sequence_revision 21-Feb-1997 #text_change 08-May-1997
ACCESSIONS I46997
REFERENCE I46997
#authors Seow, H.F.; Yoshimura, T.; Wood, P.R.; Colditz, I.G.
#journal Immunol. Cell Biol. (1994) 72:398-405
#title Cloning, sequencing, expression and inflammatory activity in skin of ovine interleukin-8.
#cross-references MUID:95137691
#accession I46997
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-101 ##label SFO
#cross-references GB:S74436; NID:g786590; PID:g786591
GENETICS
#introns 0/1-8
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 101 #molecular-weight 11292 #checksum 294

Query Match 77.2%; Score 71; DB 2; Length 101;
Best Local Similarity 66.7%; Pred. No. 1.15e-02;
Matches 8; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

Db 75 EVCIDPKEKVVQ 86
```

OY 1 EICADPSEEWQ 12

RESULT 20

ENTRY S42496 #type complete
TITLE interleukin 8 - sheep
ORGANISM #formal_name Ovis orientalis arles; Ovis ammon arles
#common_name domestic sheep
DATE 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 08-Sep-1997

ACCESSIONS S42496
REFERENCE S42496
#authors Legastelois, I.; Greenland, T.; Arnaud, P.; Mornex, J.F.; Cordier, G.
#submission submitted to the EMBL Data Library, March 1994
#description Nucleotide sequence of ovine interleukin 8 cDNA using polymerase chain reaction.

#accession S42496
#status preliminary
#molecule_type mRNA
#residues 1-101 #label LEG
#cross-references EMBL:X78306; NID:g463253; PID:g463254
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 101 #molecular-weight 11292 #checksum 294

Query Match 77.2%; Score 71; DB 2; Length 101;
Best Local Similarity 66.7%; Pred. No. 1.15e-02;
Matches 8; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

Db 75 EVCIDPKREKWO 86
OY 1 EICADPSEEWQ 12

RESULT 21

ENTRY A44253 #type complete
TITLE alveolar macrophage chemotactic factor-I (AMCF-I)
ORGANISM interleukin 8 homolog - pig
DATE 30-Apr-1993 #sequence_revision 18-Nov-1994 #text_change 23-Feb-1996

ACCESSIONS A44253
REFERENCE A44253
#authors Goodman, R.B.; Foster, D.C.; Mathewes, S.L.; Osborn, S.G.; Kiljper, J.L.; Forstrom, J.W.; Martin, T.R.
#journal Biochemistry (1992) 31:10483-10490
#title Molecular cloning of porcine alveolar macrophage-derived neutrophil chemotactic factors I and II: identification of porcine IL-8 and another Intercline-alpha protein.

#cross-references MUID:93041741
#accession A44253
#status preliminary
#molecule_type mRNA; protein
#residues 1-103 #label GOO
#experimental_source alveolar macrophage
#note sequence extracted from NCBI backbone (NCBI:117415, NCBI:117416)

CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 103 #molecular-weight 11677 #checksum 8904

Query Match 77.2%; Score 71; DB 2; Length 103;
Best Local Similarity 66.7%; Pred. No. 1.15e-02;
Matches 8; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

Db 75 EVCIDPKREKWO 86
OY 1 EICADPSEEWQ 12

RESULT 22

ENTRY A53096 #type complete
TITLE interleukin-8 precursor - pig

ORGANISM #formal_name Sus scrofa domestica #common_name domestic pig
DATE 02-Jun-1995 #sequence_revision 02-Jun-1995 #text_change 08-Sep-1997

ACCESSIONS A53096
REFERENCE A53096
#authors Lin, G.; Pearson, A.E.; Scamurra, R.W.; Zhou, Y.; Baarsch, M.J.; Weiss, D.J.; Murttaugh, M.P.
#journal J. Biol. Chem. (1994) 269:77-85
#title Regulation of interleukin-8 expression in porcine alveolar macrophages by bacterial lipopolysaccharide.

#accession A53096
#status preliminary
#molecule_type mRNA
#residues 1-103 #label LIN
#cross-references GB:M86923; NID:g164520; PID:g164521
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 103 #molecular-weight 11633 #checksum 8835

Query Match 77.2%; Score 71; DB 2; Length 103;
Best Local Similarity 66.7%; Pred. No. 1.15e-02;
Matches 8; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

Db 75 EVCIDPKREKWO 86
OY 1 EICADPSEEWQ 12

RESULT 23

ENTRY I46857 #type complete
TITLE monocytic chemoattractant protein-1 - rabbit
ORGANISM #formal_name Oryctolagus cuniculus #common_name domestic rabbit
DATE 14-Feb-1997 #sequence_revision 14-Feb-1997 #text_change 09-May-1997

ACCESSIONS I46857
REFERENCE I46857
#authors Yoshimura, T.; Yuhki, N.
#journal J. Immunol. (1991) 146:3483-3488
#title Neutrophil attractant/activation protein-1 and monocytic chemoattractant protein-1 in rabbit: cDNA cloning and their expression in spleen cells.

#cross-references MUID:91225489
#accession I46857
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-125 #label YOS
#cross-references GB:M57440; NID:g165469; PID:g165470
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 125 #molecular-weight 13776 #checksum 4498

Query Match 77.2%; Score 71; DB 2; Length 125;
Best Local Similarity 72.7%; Pred. No. 1.15e-02;
Matches 8; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 74 ICADPKOKWO 84
OY 2 ICADPSEEWQ 12

RESULT 24

ENTRY JC4912 #type complete
TITLE eotaxin - human
ORGANISM #formal_name Homo sapiens #common_name man
DATE 01-Nov-1996 #sequence_revision 01-Nov-1996 #text_change 08-Sep-1997

ACCESSIONS JC4912
REFERENCE JC4912
#authors Bartels, J.; Schueter, C.; Richter, E.; Noso, N.; Kulke, R.; Christophers, E.; Schroeder, J.M.
#journal Biochem. Biophys. Res. Commun. (1996) 225:1045-1051
#title Human dermal fibroblasts express eotaxin: Molecular cloning, mRNA expression, and identification of eotaxin sequence variants.

#accession J04912
#status Preliminary
#molecule_type mRNA
#residues 1-97 #label BAR
#cross-references EMBL:275668; NID:g1531983; PID:e251275; PID:g1531983
#experimental_source dermal fibroblast
COMMENT This protein has eosinophil specific chemotactic activity.
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS fibroblast

FEATURE
1-18 #domain signal sequence #status predicted #label SIG\
19-97 #product ectatin #status predicted #label MAT
SUMMARY #length 97 #molecular_weight 10790 #checksum 448

Query Match 76.18; Score 70; DB 2; Length 97;
Best Local Similarity 66.78; Pred. No. 1,80e-02;
Matches 8; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

Db 71 DICADPKRHWQ 82
QY 1 EICADPSEWVQ 12

RESULT 25
ENTRY A37034 #type complete
TITLE interleukin-8 precursor human
ALTERNATE_NAMES beta-thromboglobulin-like protein; fibroblast-derived neutrophil-activating factor alpha; lung carcinoma-derived chemotaxin; lymphocyte-derived neutrophil-activating factor; monocyte-derived neutrophil chemotactic factor; monocyte-derived neutrophil-activating factor
ORGANISM #formal_name Homo sapiens #common_name man
DATE 08-Dec-1992 #sequence_revision 08-Dec-1992 #text_change 13-Sep-1998
ACCESSIONS A37034; J10041; A32791; S37634; P10107; A28598; A27488; A39960; A60401; A60591; S15827; S04216; A60567; A60847; S15417; S03975; I54560; I55992; I37902; S67519
REFERENCE A37034
#authors Mukaide, N.; Shirao, M.; Matsushima, K.
#journal J. Immunol. (1989) 143:1366-1371
#title Genomic structure of the human monocyte-derived neutrophil chemotactic factor IL-8.
#cross-references M01D:89309826
#accession A37034
#molecule_type DNA
#residues 1-99 #label MOK
#cross-references GB:M28130; NID:g186367; PID:g186368
#note the authors failed to translate the last thirty-six nucleotides of the second exon

REFERENCE J10041
#authors Matsushima, K.; Morishita, K.; Yoshimura, T.; Lavu, S.; Kobayashi, Y.; Lew, W.; Appella, E.; Kung, H.F.; Leonard, E.J.; Oppenheim, J.J.
#journal J. Exp. Med. (1988) 167:1883-1893
#title Molecular cloning of a human monocyte-derived neutrophil chemotactic factor (MDMCF) and the induction of MDMCF mRNA by interleukin 1 and tumor necrosis factor.
#cross-references M01D:88258376
#accession J10041
#molecule_type mRNA
#residues 1-99 #label MAL
#cross-references EMBL:Y00787; NID:g34518; PID:g34519
#note the sequence shows similarity to several platelet-derived factors, a v-src-induced protein, a IFN-gamma-inducible protein

REFERENCE A32791
#authors Kowalski, J.; Denhardt, D.T.
#journal Mol. Cell. Biol. (1989) 9:11946-11957
#title Regulation of the mRNA for monocyte-derived neutrophil-activating peptide in differentiating HL60 promyelocytes.
#cross-references M01D:89313739

#accession A32791
#molecule_type mRNA
#residues 1-99 #label KOW
#cross-references GB:M26383; NID:g188627; PID:g188628
REFERENCE S37634
#authors King, C.H.; Gordon, G.S.; Konieczkowski, M.; Sedor, J.R.
#submission submitted to the EMBL Data Library, February 1992
#accession S37634
#status Preliminary
#molecule_type mRNA
#residues 1-97 #label KIN
#cross-references EMBL:Z11686; NID:g33958; PID:g33959
REFERENCE P10107
#authors Suzuki, K.; Miyasaka, H.; Ota, H.; Yamakawa, Y.; Tagawa, M.; Kuramoto, A.; Mizuno, S.
#journal J. Exp. Med. (1989) 169:1895-1901
#title Purification and partial primary sequence of a chemotactic protein for polymorphonuclear leukocytes derived from human lung giant cell carcinoma LU65C cells.
#cross-references M01D:89279141
#accession P10107
#molecule_type protein
#residues 23-32, 'XR', '35', 'X', '37-52', 'L', '54' #label SUZ
#experimental_source Lung giant cell carcinoma LU65C
REFERENCE A28598
#authors Gregory, H.; Young, J.; Schroeder, J.M.; Mrowietz, U.; Christophers, E.
#journal Biochem. Biophys. Res. Commun. (1988) 151:883-890
#title Structure determination of a human lymphocyte derived neutrophil activating peptide (LYNAP).
#cross-references M01D:88162914
#accession A28598
#molecule_type protein
#residues 28-99 #label GRE
REFERENCE A27488
#authors Walz, A.; Peyerl, P.; Aschauer, H.; Baggiolini, M.; Blochem, Biophys. Res. Commun. (1987) 149:755-761
#title Purification and amino acid sequencing of NAF, a novel neutrophil-activating factor produced by monocytes.
#cross-references M01D:88106502
#accession A27488
#molecule_type protein
#residues 28-59 #label MAL
REFERENCE A39960
#authors Yoshimura, T.; Matsushima, K.; Tanaka, S.; Robinson, E.A.; Appella, E.; Oppenheim, J.J.; Leonard, E.J.
#journal Proc. Natl. Acad. Sci. U.S.A. (1987) 84:9233-9237
#title Purification of a human monocyte-derived neutrophil chemotactic factor that has peptide sequence similarity to other host defense cytokines.
#cross-references M01D:88097462
#accession A39960
#molecule_type protein
#residues 28-69 #label YOS
REFERENCE A60401
#authors Schroeder, J.M.; Sticherling, M.; Henneicke, H.H.; Preissner, W.C.; Christophers, E.
#journal J. Immunol. (1990) 144:2223-2232
#title IL-1alpha or tumor necrosis factor-alpha stimulate release of three NAP-1/IL-8-related neutrophil chemotactic proteins in human dermal fibroblasts.
#cross-references M01D:90187866
#accession A60401
#molecule_type protein
#residues 23-32 #label SCH
#experimental_source dermal fibroblasts
#note a minor component of this material (15%) includes an additional two amino acids at the amino end

REFERENCE A60591
#authors Van Damme, J.; Decock, B.; Conings, R.; Lenaerts, J.P.; Opdenacker, G.; Billiau, A.
#journal Eur. J. Immunol. (1989) 19:1189-1194
#title The chemotactic activity for granulocytes produced by virally

infected fibroblasts is identical to monocyte-derived interleukin 8.

#accession A60591
#molecule-type protein
#residues 23-33,'X',35,'X',37-42 #label VAN

REFERENCE
#authors Nakagawa, H.; Hatakeyama, S.; Ikeue, A.; Miyai, H.
#journal FEBS Lett. (1991) 282:412-414
#title Generation of interleukin-8 by plasmin from AVIPR-interleukin-8, the human fibroblast-derived neutrophil chemotactic factor.
#cross-references MUID:91243843
#accession S15827
##molecule-type protein
#residues 23-33,'X',35,'X',37-47 #label FEB

REFERENCE
#authors van Damme, J.; van Beeumen, J.; Conings, R.; Decock, B.; Billiau, A.
#journal Eur. J. Biochem. (1989) 181:337-344
#title Purification of granulocyte chemotactic peptide/interleukin-8 reveals N-terminal sequence heterogeneity similar to that of beta-chromoglobulin.
#cross-references MUID:89231715
#accession S04216
##molecule-type protein
#residues 21-67 #label VA2

REFERENCE
#authors Yoshimura, T.; Robinson, E.A.; Appella, E.; Matsushima, K.; Showalter, S.D.; Skeel, A.; Leonard, E.J.
#journal Mol. Immunol. (1989) 26:87-93
#title Three forms of monocyte-derived neutrophil chemotactic factor (MNCF) distinguished by different lengths of the amino-terminal sequence.
#accession A60567
##molecule-type protein
#residues 21-33,'X',35,'X',37-47 #label Y02
#note the forms starting from positions 21, 23, and 28 represented 8%, 47%, and 45%, respectively, of total interleukin-8

REFERENCE
#authors Van Damme, J.; Van Beeumen, J.; Opdenakker, G.; Billiau, A.
#journal J. Exp. Med. (1988) 167:1364-1376
#title A novel, NH-2-terminal sequence-characterized human monokine possessing neutrophil chemotactic, skin-reactive, and granulocytosis-promoting activity.
#accession A60847
##molecule-type protein
#residues 28-47 #label VA3

REFERENCE
#authors Car, B.D.; Baggiolini, M.; Walz, A.
#journal Biochem. J. (1991) 275:581-584
#title Formation of neutrophil-activating peptide 2 from platelet-derived connective-tissue-activating peptide III by different tissue proteinases.
#cross-references MUID:91248085
#accession S15417
#status preliminary
##molecule-type protein
#residues 28-99 #label CAR

REFERENCE
#authors Golds, E.E.; Mason, P.; Nyirkos, P.
#journal Biochem. J. (1989) 259:585-588
#title Inflammatory cytokines induce synthesis and secretion of gro protein and a neutrophil chemotactic factor but not beta-2-microglobulin in human synovial cells and fibroblasts.
#cross-references MUID:89246368
#accession S03975
##molecule-type protein
#residues 23-46 #label GOL

REFERENCE
#authors Hotta, K.; Hayashi, K.; Ishikawa, J.; Tagawa, M.; Hashimoto, K.; Mizuno, S.; Suzuki, K.

#journal Immunol. Lett. (1990) 24:165-170
#title Coding region structure of interleukin-8 gene of human lung giant cell carcinoma U65C cells that produce LCT/interleukin-8: homogeneity in interleukin-8 genes.
#cross-references MUID:90346419

...
Note: remainder of annotations omitted.

Query Match 76.1%; Score 70; DB 2; Length 99;
Best Local Similarity 66.7%; Pred. No. 1.80e-02;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

DB 75 EUCADPKRMWQ 86
1 EICADPSEWVQ 12

RESULT 26
ENTRY JC5295 #type complete
TITLE monocyte chemotactic protein-2 - human
ORGANISM #formal_name Homo sapiens #common_name man
DATE 02-May-1997 #sequence_revision 18-Jul-1997 #text_change 31-Oct-1997

ACCESSIONS JC5295
#authors Van Collille, E.; Froyen, G.; Nomiya, H.; Miura, R.; Fiten, P.; Van Aelst, I.; Van Damme, J.; Opdenakker, G.
#journal Biochem. Biophys. Res. Commun. (1997) 231:726-730
#title Human monocyte chemotactic protein-2: cDNA cloning and regulated expression of mRNA in mesenchymal cells.
#accession JC5285
##molecule-type mRNA
#residues 1-99 #label VAN

##cross-references GB:Y10802; NID:91924937; PID:e294088; PID:91924938
##experimental_source bone marrow

COMMENT This protein belongs to the beta-chemokine family which is one of the major HIV-suppressive factors. It plays roles in autoimmune processes such as multiple sclerosis and rheumatoid arthritis and in tumor biology, and contribute to the trafficking and recruitment of the responsive cells.

GENETICS mcp-2
#gene #superfamily macrophage inflammatory protein

CLASSIFICATION
FEATURE 1-23 #domain signal sequence #status predicted #label SIG\
24-99 #product monocyte chemotactic protein-2 #status predicted #label MAT

SUMMARY #length 99 #molecular-weight 11246 #checksum 6596

Query Match 76.1%; Score 70; DB 2; Length 99;
Best Local Similarity 66.7%; Pred. No. 1.80e-02;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

DB 73 EYCADPKRMW 84
1 EICADPSEWVQ 12

RESULT 27
ENTRY A32393 #type complete
TITLE macrophage inflammatory protein-1-alpha precursor - mouse
ALTERNATE_NAMES heparin-binding chemotaxis protein; L2G2B protein; SC1/MIP-1a; SIS alpha; stem cell inhibitor/macrophage inflammatory protein 1-alpha; T-cell activation protein alpha; rvs

ORGANISM #formal_name Mus musculus #common_name house mouse
DATE 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 08-Sep-1997

ACCESSIONS S11685; A32393; S04533; A53885; A30552; PS0303; A27596; S116104
#authors S11685
#journal Grove, M.; Lowe, S.; Graham, G.; Pragnell, I.; Plumb, M. Nucleic Acids Res. (1990) 18:5561

```

#title      Sequence of the murine haemopoietic stem cell
#cross-references EMBL:91016858
#accession  S11685
#molecule-type DNA
#residues  1-92 ##label GRO
##cross-references EMBL:X53372; NID:954062; PID:9297531
#note      the authors' translation of the nucleotide sequence
          differs at several positions from the sequence given

REFERENCE
#authors    A32393
#journal    Kwon, B.S.; Weissman, S.M.
#title      Proc. Natl. Acad. Sci. U.S.A. (1989) 86:1963-1967
#cross-references MUID:89184547
#accession  A32393
#molecule-type mRNA
#residues  1-92 ##label KMO
##cross-references GB:J04491; NID:9201524; PID:9201525
#accession  S04533
#journal    Davatelis, G.; Tekamp-Olson, P.; Wolpe, S.D.; Hermesen, K.;
#title      Luedke, C.; Gallegos, C.; Colt, D.; Merryweather, J.;
          Cerami, A.
          J. Exp. Med. (1988) 167:1939-1944
          Cloning and characterization of a cDNA for murine macrophage
          inflammatory protein (MIP), a novel monokine with
          inflammatory and chemokinetic properties.
#cross-references MUID:88258380
#accession  S04533
#molecule-type mRNA
#residues  1-48, 'E', '50-90', 'I', '92 ##label DA2
##cross-references EMBL:X12531
#note      the authors translated the codon GAG for residue 49 as
          Asp and Att for residue 91 as Asn
          the sequence has been corrected in reference A53885

REFERENCE
#authors    A53885
#journal    Davatelis, G.; Tekamp-Olson, P.; Wolpe, S.D.; Hermesen, K.;
#title      Luedke, C.; Gallegos, C.; Colt, D.; Merryweather, J.;
          Cerami, A.
          J. Exp. Med. (1989) 170:2189

#journal    J. Exp. Med. (1989) 170:2189
#contents  erratum
#accession  A53885
#molecule-type mRNA
#residues  1-92 ##label DAV
##cross-references EMBL:X12531; NID:953122; PID:953123
#accession  A30552
#journal    Brown, K.D.; Zurawski, S.M.; Mosmann, T.R.; Zurawski, G.
#title      J. Immunol. (1989) 142:679-687
          A family of small inducible proteins secreted by leukocytes
          are members of a new superfamily that includes leukocytes
          and fibroblast-derived inflammatory agents, growth factors,
          and indicators of various activation processes.
#cross-references MUID:89093958
#accession  A30552
#molecule-type mRNA
#residues  1-21, 'L', '23-61', 'A', '63-92 ##label BRO
##cross-references GB:M23447; NID:9533240; PID:9533241
#accession  J10088
#journal    Sherry, B.; Tekamp-Olson, P.; Gallegos, C.; Bauer, D.;
#title      Davatelis, G.; Wolpe, S.D.; Mastarz, F.; Colt, D.; Cerami,
          A.
          J. Exp. Med. (1988) 168:2251-2259
          Resolution of the two components of macrophage inflammatory
          protein 1, and cloning and characterization of one of those
          components, macrophage inflammatory protein 1 beta.
#cross-references MUID:89067830
#accession  PS0303
#molecule-type mRNA
#residues  24-33, 'XX', '36-54 ##label SHE

REFERENCE
#authors    A27596
#journal    Wolpe, S.D.; Davatelis, G.; Sherry, B.; Beutler, B.; Hesse,
#title      D.G.; Nguyen, H.T.; Moldawer, L.L.; Nathan, C.F.; Lowry,
          S.F.; Cerami, A.
          J. Exp. Med. (1988) 167:570-581

```

```

#title      Macrophages secrete a novel heparin-binding protein with
#cross-references MUID:88154745
#accession  A27596
#molecule-type protein
#residues  24-33, 'XX', '36-42 ##label MOU
#note      26-Met, 30-Pro, and 39-Thr were also found

REFERENCE
#authors    I56104
#journal    Wildner, U.; Yang, Z.; van Deventer, S.; Manogue, K.R.;
#title      Sherry, B.; Cerami, A.
          J. Immunol. (1991) 146:4031-4040
          Genomic structure of murine macrophage inflammatory
          protein-1-alpha and conservation of potential regulatory
          sequences with a human homologue, LD78.
#cross-references MUID:91237116
#accession  I56104
#status    preliminary: translated from GB/EMBL/DBJ
#molecule-type DNA
#residues  1-92 ##label RES
##cross-references GB:M73061; NID:9199694; PID:9199695
#comment   This protein is a monokine.
#introns   23/3: 26/1; 63/2
#classification superfamily macrophage inflammatory protein
#keywords   heparin binding
#feature    1-23
          #domain signal sequence #status predicted #label STD\
          #product macrophage inflammatory protein #status
          experimental #label MAT
          #length 92 #molecular-weight 10345 #checksum 5009

SUMMARY
Query Match 75.0%; Score 69; DB 2; Length 92;
Best Local Similarity 66.7%; Pred. No. 2.80e-02;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 71 QICADSKETWQ 82
QY 1 EICADPSSEWVQ 12

RESULT 28
ENTRY 146871 #type complete
TITLE Interleukin-8 - rabbit
ALTERNATE_NAMES neutrophil attractant/activation protein-1
ORGANISM #formal_name Oryctolagus cuniculus #common_name domestic
          rabbit
DATE 14-Feb-1997 #sequence_revision 14-Feb-1997 #text_change
09-Aug-1997
ACCESSIONS 146871; S13052
REFERENCE 146857
#authors    Yoshimura, T.; Yuhki, N.
#journal    J. Immunol. (1991) 146:3483-3488
#title      Neutrophil attractant/activation protein-1 and monocyte
          chemotactic protein-1 in rabbit: cDNA cloning and their
          expression in spleen cells.
#cross-references MUID:91225489
#accession  I46871
#status    preliminary: translated from GB/EMBL/DBJ
#molecule-type mRNA
#residues  1-101 ##label YOS
##cross-references GB:M57439; NID:9165552; PID:9165553
#accession  S13052
#authors    Beaudien, B.C.; Collins, P.D.; Jose, P.J.; Totty, N.F.;
#journal    Hsuan, J.; Waterfield, M.D.; Williams, T.J.
#title      Biochem. J. (1990) 271:797-801
          A novel neutrophil chemoattractant generated during an
          inflammatory reaction in the rabbit peritoneal cavity in
          vivo. Purification, partial amino acid sequence and
          structural relationship to interleukin 8.
#cross-references MUID:91058518
#accession  S13052
#molecule-type protein
#residues  23-33, 'X', '35', 'X', '37-46', 'X', '48-49', 'I', '51-53 ##label BEA

```

CLASSIFICATION #superfamily beta-thromboglobulin
KEYWORDS cytokine
SUMMARY #length 101 #molecular-weight 11402 #checksum 1085

Query Match 73.9%; Score 68; DB 2; Length 101;
Best Local Similarity 66.7%; Pred. No. 4.33e-02;
Matches 8; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

Db 75 ELCLDPKRWQ 86
1:1111111
QY 1 EICADPSEEWQ 12

RESULT 29
ENTRY 148099 #type complete
TITLE eotaxin precursor - guinea pig
ORGANISM #formal_name Cavia porcellus #common_name guinea pig
DATE 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 09-May-1997

ACCESSIONS 148099
REFERENCE 148099
#authors Rothenberg, M.E.; Luster, A.D.; Lilly, C.M.; Drazen, J.M.; Leder, P.

#journal J. Exp. Med. (1995) 181:1211-1216
#title Constitutive and allergen-induced expression of eotaxin mRNA in the guinea pig lung.

#cross-references M01D:95173589
#accession 148099
#status preliminary; translated from GB/EMBL/DBJ

##residues 1-96 ##label RES
##cross-references EMBL:U18941; NID:6687655; PID:6687656

CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 96 #molecular-weight 10753 #checksum 7236

Query Match 72.8%; Score 67; DB 2; Length 96;
Best Local Similarity 72.7%; Pred. No. 6.70e-02;
Matches 8; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Db 71 ICADPRKKRWQ 81
1111111
QY 2 ICADPSEEWQ 12

RESULT 30
ENTRY JC2478 #type complete
TITLE eotaxin - rat
ORGANISM #formal_name Rattus norvegicus #common_name Norway rat
DATE 21-Feb-1995 #sequence_revision 05-Apr-1995 #text_change 08-Sep-1997

ACCESSIONS JC2478
REFERENCE JC2478
#authors Jose, P.J.; Adcock, I.M.; Griffiths-Johnson, D.A.; Berkman, N.; Wells, T.N.C.; Williams, T.J.; Power, C.A.

#journal Biochem. Biophys. Res. Commun. (1994) 205:788-794
#title Eotaxin: Cloning of an eosinophil chemoattractant cytokine and increased mRNA expression in allergen-challenged guinea-pig lungs.

#accession JC2478
#molecule_type mRNA
##residues 1-96 ##label JOS
##cross-references EMBL:X77603; NID:9602551; PID:9602552
COMMENT This protein is identified as a potent eosinophil chemoattractant.
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS glycoprotein
FEATURE 1-23
1-23 #domain signal sequence #status predicted #label SIG\
24-96 #product eotaxin #status predicted #label MAT\
93 #binding_site carbohydrate (Thr) (covalent) #status predicted

SUMMARY #length 96 #molecular-weight 10695 #checksum 7329

Query Match 72.8%; Score 67; DB 2; Length 96;

Best Local Similarity 72.7%; Pred. No. 6.70e-02;
Matches 8; Conservative 0; Mismatches 3; Indels 0; Gaps 0;
Db 71 ICADPRKKRWQ 81
1111111
QY 2 ICADPSEEWQ 12

Search completed: Thu Apr 1 07:40:34 1999
Job time : 14 secs.

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MIRAGE

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Msrch_pp protein - protein database search, using Smith-Waterman algorithm
Run on: Thu Apr 1 07:39:00 1999; Msrch time 2.30 Seconds
Tabular output not generated. 139,843 Million cell updates/sec

Title: >US-08-927-939-12
Description: (1-12) from US08927939.pep
Perfect Score: 92
Sequence: 1 EITCADPSEEWQ 12

Scoring table:
PAM 150
Gap 15

Searched: 74019 seqs, 26840295 residues

Post-processing: Minimum Match 0%
Listing first 100 summaries

Database: swiss-prot36
1:swissprot

Statistics: Mean 25.534; Variance 34.572; scale 0.739

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description	Pred. No.
1	87	94.6	92	1	MIL-HUMAN	5.77e-07
2	87	94.6	93	1	MIL-HUMAN	5.77e-07
3	82	89.1	148	1	MCP1-RAT	8.23e-06
4	80	87.0	92	1	MIL-HUMAN	2.34e-05
5	80	87.0	98	1	MCP4-HUMAN	2.34e-05
6	80	87.0	99	1	MCP3-HUMAN	2.34e-05
7	78	84.8	120	1	MCP1-CAVPO	6.60e-05
8	78	84.8	148	1	MCP1-RABIT	6.60e-05
9	77	83.7	92	1	MIL-RABIT	1.10e-04
10	77	83.7	99	1	MCP1-HUMAN	1.10e-04
11	77	83.7	101	1	MCP1-CANFA	1.10e-04
12	76	82.6	90	1	MIL-CHICK	1.84e-04
13	76	82.6	92	1	MIL-RAT	1.84e-04
14	76	82.6	99	1	MCP1-PIG	1.84e-04
15	74	80.4	74	1	MIL-BOVIN	5.06e-04
16	74	80.4	92	1	MCP2-BOVIN	5.06e-04
17	74	80.4	99	1	MCP2-BOVIN	5.06e-04
18	74	80.4	99	1	MCP2-BOVIN	5.06e-04
19	73	79.3	97	1	EOTA-RAT	8.35e-04
20	73	79.3	97	1	EOTA-RAT	8.35e-04
21	73	79.3	104	1	MCP5-MOUSE	8.35e-04
22	72	78.3	89	1	MIP4-HUMAN	1.38e-03
23	72	78.3	97	1	EOTA-HUMAN	1.38e-03

24	72	78.3	99	1	MCPA-BOVIN	1.38e-03
25	71	77.2	92	1	MIL-MOUSE	2.26e-03
26	71	77.2	93	1	CCO1-HUMAN	2.26e-03
27	71	77.2	101	1	IIL-SHEEP	2.26e-03
28	71	77.2	101	1	IIL-CANFA	2.26e-03
29	71	77.2	103	1	IIL-PIG	2.26e-03
30	71	77.2	109	1	CCO3-HUMAN	2.26e-03
31	71	77.2	125	1	MCP1-RABIT	2.26e-03
32	70	76.1	99	1	MCP2-HUMAN	3.69e-03
33	70	76.1	99	1	IIL-HUMAN	3.69e-03
34	69	75.0	92	1	MIL-MOUSE	6.02e-03
35	68	73.9	101	1	IIL-RABIT	9.78e-03
36	68	73.9	101	1	IIL-BOVIN	9.78e-03
37	67	72.8	96	1	EOTA-CAVPO	1.58e-02
38	67	72.8	101	1	IIL-CERTO	1.58e-02
39	67	72.8	101	1	IIL-MACMG	1.58e-02
40	67	72.8	103	1	EMPL-CHICK	1.58e-02
41	65	70.7	91	1	SISD-CHICK	4.10e-02
42	65	70.7	92	1	SISD-MOUSE	4.10e-02
43	62	67.4	97	1	MCP3-MOUSE	1.66e-01
44	61	66.3	114	1	ITN-MOUSE	2.62e-01
45	61	66.3	116	1	C10-MOUSE	2.62e-01
46	60	65.2	114	1	ITN-RAT	4.13e-01
47	59	64.1	50	1	SISD-PIG	6.47e-01
48	59	64.1	91	1	SISD-HUMAN	6.47e-01
49	59	64.1	91	1	SISD-CAVPO	6.47e-01
50	59	64.1	1021	1	YR2-DROME	6.47e-01
51	58	63.0	96	1	M13A-HUMAN	1.01e+00
52	58	63.0	101	1	IIL-CAVPO	1.01e+00
53	58	63.0	114	1	M1G-HUMAN	1.01e+00
54	58	63.0	122	1	M1G-MOUSE	1.01e+00
55	58	63.0	1456	1	YD45-SCHO	1.01e+00
56	57	62.0	89	1	SDP1-MOUSE	1.56e+00
57	57	62.0	93	1	SDP1-HUMAN	1.56e+00
58	57	62.0	98	1	M13B-HUMAN	1.56e+00
59	55	59.8	146	1	M1OC-ECOLI	3.71e+00
60	55	59.8	854	1	PINKL-NPVC	3.71e+00
61	55	59.8	894	1	LDLR-CRIGR	5.66e+00
62	54	58.7	296	1	MUG-MOUSE	5.66e+00
63	54	58.7	855	1	ENV-HY126	5.66e+00
64	54	58.7	860	1	LDLR-HUMAN	5.66e+00
65	54	58.7	879	1	LDLR-RAT	5.66e+00
66	53	57.6	62	1	ITRI-ASCUS	8.60e+00
67	53	57.6	329	1	HEM2-MYCLE	8.60e+00
68	53	57.6	410	1	PO12-NAVSY	8.60e+00
69	53	57.6	837	1	LDLR-RABIT	8.60e+00
70	53	57.6	2179	1	POLG-HRV14	8.60e+00
71	52	56.5	278	1	VC27-BPEP3	1.30e+01
72	52	56.5	368	1	VC59-HSVSA	1.30e+01
73	52	56.5	374	1	YEAW-ECOLI	1.30e+01
74	52	56.5	562	1	GUN1-ACICE	1.30e+01
75	51	55.4	85	1	KOC2-ECOLI	1.95e+01
76	51	55.4	217	1	GTMU-MESNU	1.95e+01
77	51	55.4	336	1	GSFK-VIBCH	1.95e+01
78	51	55.4	377	1	AR41-SCHO	1.95e+01
79	51	55.4	383	1	CGD2-ARATH	1.95e+01
80	51	55.4	482	1	VGLY-TACV7	1.95e+01
81	51	55.4	483	1	VGLY-TACV5	1.95e+01
82	51	55.4	483	1	VGLY-TACV7	1.95e+01
83	51	55.4	495	1	VGLY-TACV7	1.95e+01
84	51	55.4	506	1	YAZ6-SCHO	1.95e+01
85	51	55.4	513	1	YD17-SCHO	1.95e+01
86	51	55.4	716	1	GPAL-YEAST	1.95e+01
87	51	55.4	827	1	PLSB-MOUSE	1.95e+01
88	51	55.4	830	1	VP41-CAEEL	1.95e+01
89	51	55.4	896	1	MAOR-VAULT	1.95e+01
90	50	54.3	92	1	SISF-MOUSE	2.91e+01
91	50	54.3	104	1	VPR-HV25T	2.91e+01
92	50	54.3	105	1	VPR-HV25B	2.91e+01
93	50	54.3	131	1	ISB-SHISO	2.91e+01
94	50	54.3	131	1	ISB-SHISO	2.91e+01
95	50	54.3	141	1	CYTN-HUMAN	2.91e+01
96	50	54.3	167	1	ISB-ECOLI	2.91e+01

97 50 54.3 398 1 YARP_ECOLI HYPOTHETICAL 44.7 KD P 2.91e+01
 98 50 54.3 363 1 GUNB_CLOTM ENDOGLUCANASE B PRECUR 2.91e+01
 99 50 54.3 1180 1 EX5B_ECOLI EXOEXOXYRIBONUCLEASE V 2.91e+01
 100 50 54.3 1182 1 ABL2_HUMAN TYROSINE-PROTEIN KINAS 2.91e+01

ALIGNMENTS

RESULT 1
 ID M11A_HUMAN STANDARD; PRT; 92 AA.
 AC P10147;
 DT 01-MAR-1989 (REL. 10, CREATED)
 DT 01-MAR-1989 (REL. 10, LAST SEQUENCE UPDATE)
 DT 01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
 DE MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA PRECURSOR (MIP-1-ALPHA)
 DE (TONSILLAR LYMPHOCYTE LD78 ALPHA PROTEIN) (GOS19-1 PROTEIN) (SIS-BETA)
 DE (PAT 464.1) (SMALL INDUCIBLE CYTOKINE A3).
 GN SCY3 OR MIP1A.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 86223879.
 RA OBARU K., FUKUDA M., MAEDA S., SHIMADA K.;
 RL J. BIOCHEM. 99:885-894(1986).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 89140347.
 RA ZIPPEL P.F., BALKE J., IRVING S.G., KELLY K., SIEBENLIST U.;
 RL J. IMMUNOL. 142:1582-1590(1989).
 RN [3]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 91103879.
 RA BLUM S., FORSDYKE R.E., FORSDYKE D.R.;
 RL DNA CELL BIOL. 9:589-602(1990).
 RN [4]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 90287155.
 RA NAKAO M., NOMIYAMA H., SHIMADA K.;
 RL MOL. CELL. BIOL. 10:3646-3658(1990).
 CC -1- SIMILARITY: 464.1 AND 464.2 ARE VERY CLOSELY RELATED.
 CC -1- FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINIC PROPERTIES.
 CC -1- INDICATION: BY TPA OR PHA (TPA - 12-O-TETRADECANOYL PHOSPHO-13
 ACETATE (TUMOR PROMOTER); PHA - PHYTOHEMAGGLUTININ (T-CELL
 MITOGEN)).
 CC -1- SIMILARITY: LD78-ALPHA AND -BETA ARE VERY CLOSELY RELATED.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 C-C) (CHEMOKINE CC).
 DR EMBL: D00044; D1000469; -.
 DR EMBL: M23452; G188559; -.
 DR EMBL: M25315; G602453; -.
 DR EMBL: X03754; G758089; -.
 DR EMBL: X04018; G34297; ALT-SEQ.
 DR EMBL: M23178; G182847; -.
 DR EMBL: D90144; G219906; -.
 DR PIR: A24198; A24198.
 DR PIR: A30574; A30574.
 DR HSSP: P13236; 1H0M.
 DR MIM: 182283; -.
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 DR CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
 FT CHAIN 1 22 POTENTIAL.
 FT SIGNAL 1 22 MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA.
 FT DISULFID 33 57 BY SIMILARITY.
 FT DISULFID 34 73 BY SIMILARITY.
 SQ SEQUENCE 92 AA; 10085 MW; C24DP919 CRC32;
 Query Match 94.6%; Score 87; DB 1; Length 92;
 Best Local Similarity 83.3%; Pred. No. 5.77e-07;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 1 EICADPSEEWQ 12
 RESULT 2
 ID M11O_HUMAN STANDARD; PRT; 93 AA.
 AC P16619;
 DT 01-AUG-1990 (REL. 15, CREATED)
 DT 01-AUG-1990 (REL. 15, LAST SEQUENCE UPDATE)
 DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
 DE TONSILLAR LYMPHOCYTE LD78 BETA PROTEIN PRECURSOR (GOS19-2 PROTEIN)
 DE (PAT 464.2).
 GN SCY3L1 OR 464.2.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX TISSUE-BLOOD;
 RX MEDLINE: 90287702.
 RA IRVING S.G., ZIPPEL P.F., BALKE J., MCBRIDE O.W., MORTON C.C.,
 RA BORD P.R., SIEBENLIST U., KELLY K.;
 RL NUCLEIC ACIDS RES. 18:3261-3270(1990).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 91103879.
 RA BLUM S., FORSDYKE R.E., FORSDYKE D.R.;
 RL DNA CELL BIOL. 9:589-602(1990).
 RN [3]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 90287155.
 RA NAKAO M., NOMIYAMA H., SHIMADA K.;
 RL MOL. CELL. BIOL. 10:3646-3658(1990).
 CC -1- SIMILARITY: 464.1 AND 464.2 ARE VERY CLOSELY RELATED.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 C-C) (CHEMOKINE CC).
 DR EMBL: X52149; G296666; -.
 DR EMBL: M24110; G182849; -.
 DR EMBL: D90145; G218908; -.
 DR PIR: B30908; B30908.
 DR PIR: B30412; B30412.
 DR PIR: B35673; B35673.
 DR PIR: S10157; S10157.
 DR HSSP: P13236; 1H0M.
 DR MIM: 601395; -.
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 DR CYTOKINE; CHEMOTAXIS; SIGNAL.
 FT CHAIN 1 23 LD78 BETA / GOS19-2 / 464.2.
 FT SIGNAL 1 23 BY SIMILARITY.
 FT DISULFID 34 58 BY SIMILARITY.
 FT DISULFID 35 74 BY SIMILARITY.
 SQ SEQUENCE 93 AA; 10161 MW; 21EDB04 CRC32;
 Query Match 94.6%; Score 87; DB 1; Length 93;
 Best Local Similarity 83.3%; Pred. No. 5.77e-07;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 72 QVCADPSEEWQ 83
 QY 1 EICADPSEEWQ 12
 RESULT 3
 ID MCP1_RAT STANDARD; PRT; 148 AA.
 AC P14844;
 DT 01-APR-1990 (REL. 14, CREATED)
 DT 01-APR-1990 (REL. 14, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (IMMEDIATE-EARLY
 SERU-RESPONSIVE JE PROTEIN).
 GN SCY2 OR JE OR MCP1.
 OS RATUS NORVEGICUS (RAT).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; RODENTIA.

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RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-WAG/RIO; TISSUE-KIDNEY;
RX TIMMERS H.T.H.M., PRONK G.J., BOS J.L., VAN DER EB A.J.;
RL NUCLEIC ACIDS RES. 18:23-34(1990).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 91128376.
RA YOSHIMURA T., TAKEYA M., TAKAHASHI K.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 174:504-509(1991).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC NETROPHILS.
CC -1- SUBUNIT: MONOMER OR HOMODIMER, IN EQUILIBRIUM (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: X17053; G55531; -.
DR EMBL: M57441; G205334; -.
DR PIR: JN0128; JN0128.
DR PIR: S07723; S07723.
DR HSP: P13500; IMCA.
DR PROSITE: P500472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
FT SIGNAL 1 23 BY SIMILARITY.
FT CHAIN 24 148 MONOCYTE CHEMOTACTIC PROTEIN 1.
FT MOD_RES 24 24 PYROLIDONE CARBOXYLIC ACID (BY
FT DISULFID 34 59 BY SIMILARITY).
FT DISULFID 35 75 BY SIMILARITY.
FT CARBOHYD 126 126 POTENTIAL.
SQ SEQUENCE 148 AA; 16460 MW; DB97FF97C CRC32;

Query Match 89.1%; Score 82; DB 1; Length 148;
Best Local Similarity 83.3%; Pred. No. 8.23e-06;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 73 EICADPNKEMVQ 84
QY 1 EICADPSEEMVQ 12

RESULT 4
ID MIB.HUMAN STANDARD: PRT; 92 AA.
AC P13236; P22617; Q13704;
DT 01-JAN-1990 (REL. 13, CREATED)
DT 01-JAN-1990 (REL. 13, LAST SEQUENCE UPDATE)
DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
DE MACROPHAGE INFLAMMATORY PROTEIN 1-BETA PRECURSOR (MIP-1-BETA) (T-CELL
DE ACTIVATION PROTEIN 2) (ACT-2) (PAT 744) (H400) (SIS-GAMMA) (LYMPHOCYTE
DE ACTIVATION GENE-1 PROTEIN) (LAG-1) (HC21) (SMALL INDUCIBLE CYTOKINE
DE A4) (G-26 T LYMPHOCYTE-SECRETED PROTEIN).
GN SCY4 OR MIP1B OR LAG1.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; PRIMATES.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 89071764.
RA LIPES M.A., NAPOLITANO M., JEANG K.-T., CHANG N.T., LEONARD W.J.;
RL PROC. NATL. ACAD. SCI. U.S.A. 85:9704-9708(1988).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 89140347.
RA ZIEPEL P.F., BALKE J., IRVING S.G., KELLY K., SIEBENLIST U.;
RL J. IMMUNOL. 142:1582-1590(1989).
RN [3]
RP SEQUENCE FROM N.A.
RX MEDLINE: 89093958.
RA BROWN K.D., ZURAWSKI S.M., MOSMANN T.R., ZURAWSKI G.;
RL J. IMMUNOL. 142:679-687(1989).
RN [4]
RP SEQUENCE FROM N.A.
RX MEDLINE: 91061800.

RA BAIERAS E., ROMAN-ROMAN S., JITSUKAWA S., GENEVEE C., MECHICHE S.,
RA VIEGAS-PEQUIGNOT E., HERCEND T., TRIEBEL F.;
RL MOL. IMMUNOL. 27:1091-1102(1990).
RN [5]
RP SEQUENCE FROM N.A.
RX TISSUE-T-CELL;
RL MEDLINE: 89325421.
RA CHANG H.C., REINHERZ E.L.;
RL EUR. J. IMMUNOL. 19:1045-1051(1989).
RN [6]
RP SEQUENCE FROM N.A.
RX MEDLINE: 91373378.
RA NAPOLITANO M., MODI W.S., CEVARIO S.J., GARRA J.R., SEDANEZ H.N.,
RA LEONARD W.J.;
RL J. BIOL. CHEM. 266:17531-17536(1991).
RN [7]
RP SEQUENCE OF 6-92 FROM N.A.
RX MEDLINE: 90038522.
RA MILLER M.D., HATA S., WAL MALEFY R., KRANGEL M.S.;
RL J. IMMUNOL. 143:2907-2916(1989).
RN [8]
RP STRUCTURE BY NMR.
RX MEDLINE: 94182137.
RA LODI P.J., GARRETT D.S., KUSCERSKI J., TSANG M.L.S., WEATHERBEE J.A.,
RA LEONARD W.J., GROENBORN A.M., CLORE G.M.;
RL SCIENCE 263:1762-1767(1994).
CC -1- FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES.
CC -1- SUBUNIT: MONOMER.
CC -1- INDUCTION: BY MITOGENS.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: M23502; G533213; -.
DR EMBL: M23516; G602455; -.
DR EMBL: J04130; G178018; -.
DR EMBL: X53683; G34218; -.
DR EMBL: X53682; E35870; ALT_SEQ.
DR EMBL: X16166; G32036; -.
DR EMBL: M69203; G1332376; -.
DR EMBL: M69201; G1332376; JOINED.
DR EMBL: M69202; G1332376; JOINED.
DR EMBL: M57503; G339727; -.
DR PIR: A31767; A31767.
DR PIR: B30574; B30574.
DR PIR: D30552; D30552.
DR PIR: JH0319; JH0319.
DR PIR: A37411; A37411.
DR PDB: 1HUM; 30-APR-94.
DR PDB: 1HUN; 30-APR-94.
DR MIM; 182284; -.
KW PROSITE: P500472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL; 3D-STRUCTURE.
FT SIGNAL 1 23
FT CHAIN 24 92
FT DISULFID 34 58
FT DISULFID 35 74 BY SIMILARITY.
FT CONFLICT 6 6 T->C (IN REF. 7).
FT CONFLICT 15 15 A->S (IN REF. 6).
FT CONFLICT 20 20 P->L (IN REF. 2).
FT CONFLICT 40 45 ARKIPR->REAS (IN REF. 3).
FT CONFLICT 56 56 S->I (IN REF. 7).
FT CONFLICT 70 70 S->G (IN REF. 6).
FT CONFLICT 80 80 S->T (IN REF. 7).
FT STRAND 29 29
FT STRAND 33 33
FT STRAND 33 33
FT HELIX 45 47
FT STRAND 50 53
FT STRAND 63 66
FT STRAND 72 75
FT TURN 77 78
FT HELIX 80 90
SQ SEQUENCE 92 AA; 10212 MW; F18E7AFD CRC32;

Query Match 87.0%; Score 80; DB 1; Length 92;
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DR EMBL: X71087; G288399; -.
DR EMBL: X71087; G288398; ALT_INIT.
DR EMBL: X71087; G288397; ALT_INIT.
DR PIR: JC1478; JC1478.
DR PIR: S32222; S32222.
DR PIR: A54678; A54678.
DR PDB: INCV: 15-OCT-97.
DR MIM: 158106; -.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; HEPARIN-BINDING; GLYCOPROTEIN; SIGNAL;
INFLAMMATORY RESPONSE; 3D-STRUCTURE.
FT SIGNAL 1 23
FT CHAIN 1 23
FT MOD_RES 24 24 MONOCYTE CHEMOTACTIC PROTEIN 3.
FT DISULFID 34 59 PYRROLIDONE CARBOXYLIC ACID.
FT DISULFID 35 75 BY SIMILARITY.
FT CARBOHYD 29 29 POTENTIAL.
FT CONFLICT 30 30 T -> K (IN REF. 4).
FT CONFLICT 68 70 MISSING (IN REF. 4).
SQ SEQUENCE 99 AA; 11200 MW; 7502E19C CRC32;

Query Match 87.0%; Score 80; DB 1; Length 99;
Best Local Similarity 75.0%; Pred. No. 2,34e-05;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 73 EICADPTOKWQ 84
1 EICADPSEWQ 12

RESULT 7
ID MCP1_CAVPO STANDARD; PRT; 120 AA.
AC Q08782;
DT 01-NOV-1995 (REL. 32, CREATED)
DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE
DE CHEMOTACTIC PROTEIN-1).
GN SCYA2 OR MCP1.
OS CAVIA PORCELLUS (GUINEA PIG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=Z; TISSUE=SPLEEN;
RX MEDLINE: 93267104.
RA YOSHIMURA T.;
PL J. IMMUNOL. 150:5025-5032(1993).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC NEUTROPHILS.
CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: L04985; G349821; -.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
FT SIGNAL 1 23
FT CHAIN 1 23 MONOCYTE CHEMOTACTIC PROTEIN 1.
FT MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID (BY
FT SIMILARITY).
FT DISULFID 33 57 BY SIMILARITY.
FT DISULFID 34 73 BY SIMILARITY.
FT CARBOHYD 97 97 POTENTIAL.
SQ SEQUENCE 120 AA; 13741 MW; 22FAD257 CRC32;

Query Match 84.8%; Score 78; DB 1; Length 120;
Best Local Similarity 66.7%; Pred. No. 6,60e-05;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 71 EVCADPTOKWQ 82
1 EICADPSEWQ 12
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RESULT 8
ID MCP1_MOUSE STANDARD; PRT; 148 AA.
AC P10148;
DT 01-MAR-1989 (REL. 10, CREATED)
DT 01-MAR-1989 (REL. 10, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE GROWTH FACTOR-INDUCIBLE PROTEIN 1 (PLATELET-DERIVED
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1)
GN SCYA2 OR MCP1 OR JE.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 89093129.
RA KAWAHARA R.S.; DEUEL T.F.;
RA J. BIOL. CHEM. 264:679-682(1989).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 88234501.
RA ROLLINS B.J.; MORRISON E.D.; STILES C.D.;
RA PROC. NATL. ACAD. SCI. U.S.A. 85:3738-3742(1988).
RN [3]
RP SEQUENCE OF 26-42.
RX MEDLINE: 91293127.
RA VAN DAMME J.; DECOCK B.; BERTINI R.; CONINGS R.; LENAERTS J.-P.;
RA PUT W.; OPDENAKKER G.; MANTOVANI A.;
RL EUR. J. BIOCHEM. 199:223-229(1991).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC NEUTROPHILS.
CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
CC -1- INDUCTION: BY PLATELET-DERIVED GROWTH FACTOR.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: J04467; G387169; -.
DR EMBL: M19681; G387168; -.
DR PIR: A30209; A30209.
DR PIR: A30861; A30861.
DR PIR: S16226; S16226.
DR HSSP: P13500; IMCA.
DR MGD: MGI:98259; SCYA2.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
FT SIGNAL 1 23
FT CHAIN 1 23 MONOCYTE CHEMOTACTIC PROTEIN 1.
FT MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID (BY
FT SIMILARITY).
FT DISULFID 34 59 BY SIMILARITY.
FT DISULFID 35 75 BY SIMILARITY.
FT CARBOHYD 126 126 POTENTIAL.
SQ SEQUENCE 148 AA; 16326 MW; B7572B9C CRC32;

Query Match 84.8%; Score 78; DB 1; Length 148;
Best Local Similarity 75.0%; Pred. No. 6,60e-05;
Matches 9; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 73 EVCADPKKWWQ 84
1 EICADPSEWQ 12

RESULT 9
ID M1B_RABIT STANDARD; PRT; 92 AA.
AC P46632;
DT 01-NOV-1995 (REL. 32, CREATED)
DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
DT 01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
DE MACROPHAGE INFLAMMATORY PROTEIN 1-BETA PRECURSOR (MIP-1-BETA) (IMMUNE
DE ACTIVATION PROTEIN 2) (ACT-2).
GN SCYA4.
OS ORCTOLAGUS CUNICULUS (RABBIT).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
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OC EUTHERIA; LAGOMORPHA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-NEW ZEALAND WHITE;
 RA MEDLINE; 94198229.
 RX MORI S., GOTO K., GOTO F., MUTAKAMI K., OKAMURA S., YOSHINAGA M.;
 RL INT. IMMUNOL. 5:149-156(1994).
 CC -1- FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES
 CC (BY SIMILARITY).
 CC -1- SUBUNIT: HOMODIMER (BY SIMILARITY).
 CC -1- SIMILARITY: BELONGS TO THE INTERCINE BETA FAMILY (SMALL CYTOKINE
 C-C) (CHEMOKINE CC).
 CC EMBL: D17402; G599578; -;
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1
 DR CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
 KM SIGNAL
 FT CHAIN 1 23 BY SIMILARITY.
 FT DISULFID 24 92 MACROPHAGE INFLAMMATORY PROTEIN 1-BETA.
 FT DISULFID 34 58 BY SIMILARITY.
 FT DISULFID 35 74 BY SIMILARITY.
 SQ SEQUENCE 92 AA; 10066 MW; A629AB2D CRC32;
 Query Match 83.7%; Score 77; DB 1; Length 92;
 Best Local Similarity 66.7%; Pred. No. 1.10e-04;
 Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;
 Db 72 QVCANPSESMTQ 83
 QY 1 EICADPSEMTQ 12
 RESULT 10
 ID MCPL_HUMAN STANDARD; PRT: 99 AA.
 AC P13500;
 DT 01-JAN-1990 (REL. 13, CREATED)
 DT 01-JAN-1990 (REL. 13, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE CHEMOTACTIC
 DE AND ACTIVATING FACTOR) (MCAF) (MONOCYTE SECRETORY PROTEIN 1) (MCP-1)
 DE (MONOCYTE CHEMOTACTIC PROTEIN 1) (MCP-1) (SMALL INDUCIBLE CYTOKINE
 DE A2).
 GN SCY2 OR MCP1.
 OS HOMO SAPIENS (HUMAN).
 OC EUCAROTIA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUTHERIA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 89165862.
 RA FURUTANI Y., NOMURA H., NOTAKE M., OYAMADA Y., FUKUI T., YAMADA M.,
 RA LARSEN C.G., OPENHEIM J.J., MATSUSHIMA K.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 159:249-255(1989).
 CC [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 90097880.
 RA ROLLINS B.J., STIER P., ERNST T., WONG G.G.;
 RL MOL. CELL. BIOL. 9:4687-4695(1989).
 CC [3]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 8913605.
 RA YOSHIMURA T., YOHKI N., MOORE S.K., APPELLA E., LERMAN M.I.,
 RA LEONARD E.J.;
 RL FEBS LETT. 244:487-493(1989).
 CC [4]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 90290466.
 RA SHAY Y.J., LI Y.S., KOLATTUKUDY P.E.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 169:346-351(1990).
 CC [5]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 91207938.
 RA CHANG H.C., HSU F., FREEMAN G.J., GRIFFIN J.D., REINHERZ E.L.;
 RL INT. IMMUNOL. 1:388-399(1989).
 CC [6]
 RP SEQUENCE FROM N.A.

RX MEDLINE; 94150478.
 RA LI Y.S., SHY Y.J., WRIGHT J.G., VALENTE A.J., CORNHILL J.F.,
 RA KOLATTUKUDY P.E.;
 RL MOL. CELL. BIOCHEM. 126:61-68(1993).
 CC [7]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 92095166.
 RA YOSHIMURA T., LEONARD E.J.;
 RL ADV. EXP. MED. BIOL. 305:47-56(1991).
 CC [8]
 RP SEQUENCE OF 24-99.
 RX MEDLINE; 89184525.
 RA ROBINSON E.A., YOSHIMURA T., LEONARD E.J., TANAKA S., GRIFFIN P.R.,
 RA SHABANOWITZ J., HUNT D.F., APPELLA E.;
 RL PROC. NATL. ACAD. SCI. U.S.A. 86:1850-1854(1989).
 CC [9]
 RP SEQUENCE OF 29-53 AND 82-92.
 RX MEDLINE; 90211336.
 RA DECOCK B., CONINGS R., LENAERTS J.-P., BILLAU A., VAN DAMME J.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 167:904-909(1990).
 CC [10]
 RP 3D-STRUCTURE MODELLING.
 RX MEDLINE; 91312872.
 RA GROENBORN A.M., CLORE G.M.;
 RL PROTEIN ENG. 4:263-269(1991).
 CC [11]
 RP X-RAY CRYSTALLOGRAPHY (1.85 ANGSTROMS).
 RX MEDLINE; 97143315.
 RA LUBKOWSKI J., BUGACZ G., DOMAILLE P.J., HANDEL T.M., WLODAWER A.;
 RL NAT. STRUCT. BIOL. 4:64-69(1997).
 CC [12]
 RP STRUCTURE BY NMR.
 RX MEDLINE; 96234959.
 RA HANDEL T.M., DOMAILLE P.J.;
 RL BIOCHEMISTRY 35:6569-6584(1996).
 CC [13]
 RP EFFECT OF DELETION OF N-TERMINAL RESIDUES.
 RX MEDLINE; 96195223.
 RA WEBER M., UGOCCIONI M., BAGGIOLINI M., CLARK-LEWIS I., DAHINDEN C.A.;
 RL J. EXP. MED. 183:681-685(1996).
 CC [14]
 RP MUTAGENESIS.
 RX MEDLINE; 94253189.
 RA ZHANG Y.T., RUTLEDGE B.J., ROLLINS B.J.;
 RL J. BIOL. CHEM. 269:15918-15924(1994).
 CC [15]
 RP SUBUNIT.
 RX MEDLINE; 97053697.
 RA KIM K.-S., RAJATHNAM K., CLARK-LEWIS I., SYKES B.D.;
 RL FEBS LETT. 395:277-282(1996).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND BASOPHILS
 CC BUT NOT NEUTROPHILS OR EOSINOPHILS. AUGMENTS MONOCYTE ANTI-TUMOR
 CC ACTIVITY. HAS BEEN IMPLICATED IN THE PATHOGENESIS OF DISEASES
 CC CHARACTERIZED BY MONOCYTIC INFILTRATES, LIKE PSORIASIS, REINHAUTOID
 CC ARTHRITIS OR ATHEROSCLEROSIS. MAY BE INVOLVED IN THE RECRUITMENT
 CC OF MONOCYTES INTO THE ARTERIAL WALL DURING THE DISEASE PROCESS OF
 CC ATHEROSCLEROSIS.
 CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM.
 CC -1- PTM: PROCESSING AT THE N-TERMINUS CAN REGULATE RECEPTOR AND TARGET
 CC CELL SELECTIVITY. DELETION OF THE AMINO-TERMINAL RESIDUE CONVERTS
 CC IT FROM AN ACTIVATOR OF BASOPHIL TO AN EOSINOPHIL CHEMOTACTANT.
 CC -1- SIMILARITY: BELONGS TO THE INTERCINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 CC EMBL: M31626; G386961; -;
 DR EMBL: M30816; G386961; JOINED.
 DR EMBL: M31625; G386961; JOINED.
 DR EMBL: M24545; G307163; -;
 DR EMBL: M28226; G338009; -;
 DR EMBL: X14768; G34514; -;
 DR EMBL: M37719; G487124; -;
 DR EMBL: M28225; G338007; -;
 DR EMBL: M28223; G338007; JOINED.
 DR EMBL: M28224; G338007; JOINED.

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RESULT 11 STANDARD; PRT; 101 AA.
ID MCPL CANFA
AC p52203;
DT 01-OCT-1996 (REL. 34, CREATED)
DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE
DE CHEMOKINE)
GN SCYA2 OR MCPL.
OS CANIS FAMILIARIS (DOG).
OC EUKARYOTA; METAFOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUHIEROTA; CARNIVORA.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-JUGULAR VEIN ENDOTHELIAL;
RX MEDLINE: 97176620.
RA KUMAR A.G., BALANTYNE C.M., MICHAEL L.H., KUKIELKA G.L., YOUNG R.A.,
RA LINDSEY M.D., HAMKINS H.R., BIRDSALL H.H., MACKAY C.R., LAROSA G.J.,
RA ROSSEN R.D., SMITH C.W., ENTMAN M.L.;
RL CIRCULATION 95:693-700(1997).
CC -1 FUNCTION: CHEMOTACTIC FACTOR.
CC NEUTROPHILS. IMPORTANT FACTOR IN THE COURSE OF THE INFLAMMATORY
CC REACTION TO REPERFUSION OF THE PREVIOUSLY ISCHEMIC MYOCARDIUM.
CC MAY PLAY A SIGNIFICANT ROLE IN MONOCYTE TRAFFICKING INTO THE
CC REPERFUSED MYOCARDIUM.
CC -1 SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
CC -1 INDUCTION: BY TNF-ALPHA.
CC -1 TISSUE SPECIFICITY: ENDOTHELIUM OF SMALL VEINS AND INTRAPASCICULAR
CC VEINS, AND INFILTRATING LEUCOCYTES.
CC -1 SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).

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DT 01-OCT-1996 (REL. 34, CRATED)
DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
DE MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA PRECURSOR (MIP-1-ALPHA)
GN SCIA3 OR MIP1A.
OS RATTUS NORVEGICUS (RAT).

CC EUKARYOTA; METAFOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUTHERIA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-CD-1; TISSUE-LUNG;
 RX MEDLINE; 95298037.
 RA SHI M.M., GODLESKI J.J., PAULAKIS J.D.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 211:289-295(1995).
 RN [2]
 RP SEQUENCE FROM N.A.
 RC STRAIN-LONG EVANS; TISSUE-LUNG;
 RX MEDLINE; 95238980.
 RA SHANLEY T.P., SCHMAL H., FRIEDL H.P., JONES M.L., WARD P.A.;
 RL J. IMMUNOL. 154:4793-4802(1995).
 RN [3]
 RP SEQUENCE OF 24-57.
 RC STRAIN-WISTAR;
 RX MEDLINE; 96183056.
 PA NAKAGAWA H., SHIOTA S., TAKANO K., SHIRATA F., KATO H.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 220:945-948(1996).
 CC -1- FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES.
 CC HAS CHEMOTACTIC ACTIVITY FOR MONOCYTES, NEUTROPHILS, EOSINOPHILS,
 CC BASOPHILS, AND LYMPHOCYTES. REQUIRED FOR LONG TNF-ALPHA
 CC PRODUCTION, NEUTROPHIL RECRUITMENT AND SUBSEQUENT LUNG INJURY AND
 CC MAY FUNCTION AS AN AUTOCRINE MEDIATOR FOR THE MACROPHAGE
 CC PRODUCTION OF TNF-ALPHA WHICH IN TURN UP-REGULATES VASCULAR
 CC ADHESION MOLECULES REQUIRED FOR NEUTROPHIL INFILUX. THIS PROTEIN
 CC BINDS HEPARIN.
 CC -1- INDUCTION: BY LIPOPOLYSACCHARIDE (LPS).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL: U22414; G790633; -.
 DR EMBL: U06435; G459150; -.
 DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
 KM CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL; HEPARIN-BINDING.
 FT SIGNAL 1 23
 FT CHAIN 24 92 MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA.
 FT DISULFID 34 57 BY SIMILARITY.
 FT DISULFID 35 73 BY SIMILARITY.
 FT CONFLICT 6 6 A -> T (IN REF. 2).
 FT CONFLICT 57 57 C -> W (IN REF. 2 AND 3).
 SQ SEQUENCE 92 AA; 10335 MW; F48CF89F CRC32;
 Query Match 82.6%; Score 76; DB 1; Length 92;
 Best Local Similarity 75.0%; Pred. No. 1.84e-04;
 Matches 9; Conservative 1; Mismatches 2; Indels 0; Gaps 0;
 Db 71 QICADPRETWQ 82
 QY 1 EICADPSEWQ 12
 RESULT 14
 ID MCP1_PIG STANDARD; PRT; 99 AA.
 AC P42831;
 RA HOSANG K., KNOKE I., KLAUDINY J., WEMPE F., WUTTKE W., SCHEIT K.H.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 199:962-968(1994).
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-BRAIN;
 RA ZACH O.R.F.;
 RL SUBMITTED (JUL-1994) TO EMBL/GENBANK/DBJ DATA BANKS.

CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
 CC NEUTROPHILS.
 CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL: Z48479; G683717; -.
 DR EMBL: X79416; G872313; -.
 DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
 KM CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
 FT SIGNAL 1 23
 FT CHAIN 24 99 BY SIMILARITY.
 FT MOD_RES 24 24 MONOCYTE CHEMOTACTIC PROTEIN 1.
 FT DISULFID 34 59 PYROLIDONE CARBOXYLIC ACID (BY
 FT DISULFID 35 75 BY SIMILARITY).
 SQ SEQUENCE 99 AA; 10976 MW; ECC3AFB4 CRC32;
 Query Match 82.6%; Score 76; DB 1; Length 99;
 Best Local Similarity 66.7%; Pred. No. 1.84e-04;
 Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;
 Db 73 EICAPKXKWQ 84
 QY 1 EICADPSEWQ 12
 RESULT 15
 ID MCPB_BOVIN STANDARD; PRT; 74 AA.
 AC P0343;
 DT 01-FEB-1995 (REL. 31, CREATED)
 DT 01-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1B (MCP-1B) (FRAGMENT).
 OS BOS TAURUS (BOVINE).
 CC EUKARYOTA; METAFOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUTHERIA; ARTIODACTYLA.
 RN [1]
 RP SEQUENCE.
 RC TISSUE-KIDNEY;
 RX MEDLINE; 95034774.
 RA PROOSP P., WUYTS A., LENAERTS J.-P., VAN DAMME J.;
 RL BIOCHEMISTRY 33:13406-13412(1994).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
 CC NEUTROPHILS. AUGMENTS MONOCYTE ANTI-TUMOR ACTIVITY. ALSO INDICES
 CC THE RELEASE OF GELATINASE B. THIS PROTEIN CAN BIND HEPARIN.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
 KM CYTOKINE; CHEMOTAXIS; HEPARIN-BINDING.
 FT NON_TER 1 1
 FT DISULFID 9 34 BY SIMILARITY.
 FT DISULFID 10 50 BY SIMILARITY.
 SQ SEQUENCE 74 AA; 8360 MW; 66172F08 CRC32;
 Query Match 80.4%; Score 74; DB 1; Length 74;
 Best Local Similarity 66.7%; Pred. No. 5.06e-04;
 Matches 8; Conservative 1; Mismatches 3; Indels 0; Gaps 0;
 Db 48 EICAPKXKWQ 59
 QY 1 EICADPSEWQ 12
 RESULT 16
 ID MIB_RAT STANDARD; PRT; 92 AA.
 AC P50230;
 DT 01-OCT-1996 (REL. 34, CREATED)
 DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
 DT 01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
 DE MACROPHAGE INFLAMMATORY PROTEIN 1-BETA PRECURSOR (MIP-1-BETA).
 GN SCY44 OR MIP1B.
 OS RATUS NORVEGICUS (RAT).

OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=LONG EVANS; TISSUE=LUNG;
RA JONES M.L., SHANLEY T.P., SCHMIDT H., FRIEDL H.P., WARD P.A.;
RL SUBMITTED (FEB-1994) TO EMBL/GENBANK/DBJ DATA BANKS.
CC -1- FUNCTION: MONOMER WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES.
CC -1- SUBUNIT: MONOMER (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
DR EMBL: U06434; G459148; -.
DR PROSITE: PS00472; SMALL CYTOKINES CC; 1.
KM CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
FT SIGNAL 1 23
FT CHAIN 1 23
FT DISULFID 24 92
FT DISULFID 34 58
FT DISULFID 35 74
SQ SEQUENCE 92 AA; 10234 MW; 3682806 CRC32;
Query Match 80.4%; Score 74; DB 1; Length 92;
Best Local Similarity 81.8%; Pred. No. 5.06e-04;
Matches 9; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
Db 72 EICADPSEWV 82
QY 1 EICADPSEWV 11
RESULT 17
ID MCP2.PIG STANDARD; PRT; 99 AA.
AC P49873;
DT 01-OCT-1996 (REL. 34, CREATED)
DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE CHEMOTACTANT PROTEIN 2).
GN SCY48 OR MCP2.
OS SUS SCROFA (PIG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; ARTIODACTYLA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 95091716.
RA HOSANG K.K., KNOKE I.I., KLAUDINY J.J., WEMPE F.F., WOTTE W.W.,
RL SCHEIT K.K.;
RA BIOCHEM. BIOPHYS. RES. COMMUN. 205:148-153(1994).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES. THIS PROTEIN CAN BIND HEPARIN.
CC -1- SUBUNIT: MONOMER OR HOMODIMER, IN EQUILIBRIUM (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
DR EMBL: 248480; G683719; -.
DR PROSITE: PS00472; SMALL CYTOKINES CC; 1.
KM CYTOKINE; CHEMOTAXIS; SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE.
FT SIGNAL 1 23
FT CHAIN 1 23
FT MOD_RES 24 24
FT MOD_RES 24 24
FT DISULFID 34 59
FT DISULFID 35 75
SQ SEQUENCE 99 AA; 10903 MW; B7620BCF CRC32;
Query Match 80.4%; Score 74; DB 1; Length 99;
Best Local Similarity 66.7%; Pred. No. 5.06e-04;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;
Db 73 EVCADPQOKWV 84
QY 1 EICADPSEWV 12
RESULT 18

ID MCP2_BOVIN STANDARD; PRT; 99 AA.
AC 009141;
DT 01-NOV-1995 (REL. 32, CREATED)
DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE CHEMOTACTANT PROTEIN 2).
GN SCY48 OR MCP2.
OS BOS TAURUS (BOVINE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; ARTIODACTYLA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 94114084.
RA WEMPE F.F., HANES J.J., SCHEIT K.H.;
RL DNA CELL BIOL. 13:1-8(1994).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES. THIS PROTEIN CAN BIND HEPARIN.
CC -1- SUBUNIT: MONOMER OR HOMODIMER, IN EQUILIBRIUM (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
DR EMBL: S67954; E118856; -.
DR PROSITE: PS00472; SMALL CYTOKINES CC; 1.
KM CYTOKINE; CHEMOTAXIS; SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE.
FT SIGNAL 1 23
FT CHAIN 1 23
FT MOD_RES 24 24
FT MOD_RES 24 24
FT DISULFID 34 59
FT DISULFID 35 75
SQ SEQUENCE 99 AA; 10900 MW; 9BA2CD26 CRC32;
Query Match 80.4%; Score 74; DB 1; Length 99;
Best Local Similarity 58.3%; Pred. No. 5.06e-04;
Matches 7; Conservative 3; Mismatches 2; Indels 0; Gaps 0;
Db 73 DVCADPQOKWV 84
QY 1 EICADPSEWV 12
RESULT 19
ID EOTA_RAT STANDARD; PRT; 97 AA.
AC P97545; 008780;
DT 15-JUL-1998 (REL. 36, CREATED)
DT 15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
OS RATUS NORVEGICUS (RAT).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RA WILLIAMS C.M., NEWTON D.J., WILSON S.A., COLEMAN J.C.,
RA FLAVAGAN B.F.;
RL SUBMITTED (DEC-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]
RP SEQUENCE FROM N.A.
RX TISSUE=LUNG;
RA ISHIT Y.;
RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
CC -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT FEATURE OF ALLERGIC INFLAMMATORY REACTIONS (BY SIMILARITY).
CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
CC -1- PTM: O-GLYCOSYLATED (PROBABLE).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
DR EMBL: Y08358; E274141; -.
DR EMBL: U96637; G208785; -.
DR PROSITE: PS00472; SMALL CYTOKINES CC; 1.
KM EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;

KW INFLAMMATORY RESPONSE.
 FT SIGNAL 1 23 POTENTIAL.
 FT CHAIN 24 97 EOTAXIN.
 FT DISULFID 32 57 BY SIMILARITY.
 FT DISULFID 33 73 BY SIMILARITY.
 FT CARBOHYD 94 94 POTENTIAL.
 FT CONFLICT 3 3 L-> S (IN REF. 2).
 SO SEQUENCE 97 AA: 10851 MW: 0584ED45 CRC32:
 Query Match 79.3%; Score 73; DB 1; Length 97;
 Best Local Similarity 75.0%; Pred. No. 8.35e-04;
 Matches 9; Conservative 0; Mismatches 3; Indels 0; Gaps 0;
 DB 71 EICADPKKKVQ 82
 1 EICADPSEEMVQ 12
 RESULT 20
 ID EOTA_MOUSE STANDARD; PRT: 97 AA.
 AC P48298;
 DT 01-FEB-1996 (REL. 33, CREATED)
 DT 01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
 GN SCV11.
 OS MUS MUSCULUS (MOUSE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-LUNG.
 RX MEDLINE: 96004658.
 RA ROSENBERG M.E., LUSTER A.D., LEDER P.;
 RA PROC. NATL. ACAD. SCI. U.S.A. 92:8960-8964(1995).
 RN [2]
 RP SEQUENCE FROM N.A.
 RC STRAIN-C57BL/6J; TISSUE-LUNG;
 RX MEDLINE: 96158746.
 RA GONZALO J.-A., JIA G.-Q., AGUIRRE V., FRIEND D., COYLE A.J.,
 RA JENKINS N.A., LIN G.-S., KATZ H., LICHTMAN A., COPELAND N.G., KOPE M.,
 RA GUTIERREZ-RAMOS J.-C.;
 RL IMMUNITY 4:1-14(1996).
 CC -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
 DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS (A PROMINENT
 FEATURE OF ALLERGIC INFLAMMATORY REACTIONS), BUT NOT
 LYMPHOCYTES, MACROPHAGES OR NEUTROPHILS.
 CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
 CC -1- TISSUE SPECIFICITY: EXPRESSED CONSTITUTIVELY IN THE THYMUS.
 CC EXPRESSION INDUCIBLE IN THE LUNG (TYPE I ALVEOLAR EPITHELIAL
 CELLS), INTESTINE, HEART, SPLEEN, KIDNEY.
 CC -1- INDUCTION: BY INTERFERON-GAMMA AND LIPOPOLYSACCHARIDE (LPS).
 CC -1- PFM: O-GLYCOSYLATED (PROBABLE).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 C-C) (CHEMOKINE CC).
 DR EMBL: U26426; G985911; -;
 DR EMBL: U40672; G1113937; -;
 DR MGD: MGI:103576; SCYAL1.
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 KW EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
 KW INFLAMMATORY RESPONSE.
 FT SIGNAL 1 23 POTENTIAL.
 FT CHAIN 24 97 EOTAXIN.
 FT DISULFID 32 57 BY SIMILARITY.
 FT DISULFID 33 73 BY SIMILARITY.
 SO SEQUENCE 97 AA: 10893 MW: F85A96BC CRC32:
 Query Match 79.3%; Score 73; DB 1; Length 97;
 Best Local Similarity 75.0%; Pred. No. 8.35e-04;
 Matches 9; Conservative 0; Mismatches 3; Indels 0; Gaps 0;
 DB 71 EICADPKKKVQ 82
 1 EICADPSEEMVQ 12

QY 1 EICADPSEEMVQ 12
 RESULT 21
 ID MCP5_MOUSE STANDARD; PRT: 104 AA.
 AC 062401;
 DT 01-NOV-1997 (REL. 35, CREATED)
 DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 5 PRECURSOR (MCP-5) (MCP-1 RELATED
 CHEMOKINE).
 GN SCYAL2 OR MCP5.
 OS MUS MUSCULUS (MOUSE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 97079149.
 RA JIA G.-Q., GONZALO J.A., LLOYD C., KREMER L., LU L., MARTINEZ A.C.,
 RA WENSHIL B.K., GUTIERREZ-RAMOS J.C.;
 RL J. EXP. MED. 184:1939-1951(1996).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 97149438.
 RA SARAFI M.N., GARCIA-ZEPEDA E.A., MACLEAN J.A., CHARO I.F.,
 RA LUSTER A.D.;
 RL J. EXP. MED. 185:99-109(1997).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS EOSINOPHILS, MONOCYTES,
 AND LYMPHOCYTES BUT NOT NEUTROPHILS. POTENT MONOCYTE ACTIVE
 CHEMOKINE THAT SIGNALS THROUGH CCR2. INVOLVED IN ALLERGIC
 INFLAMMATION AND THE HOST RESPONSE TO PATHOGENS AND MAY PLAY A
 PIVOTAL ROLE DURING EARLY STAGES OF ALLERGIC LUNG INFLAMMATION.
 CC -1- SUBUNIT: HOMODIMER (BY SIMILARITY).
 CC -1- TISSUE SPECIFICITY: PREDOMINANTLY EXPRESSED IN THE LYMPH NODES AND
 THYMUS. ALSO FOUND IN THE SALIVARY GLANDS CONTAINING LYMPH NODES,
 BREAST, HEART, LUNG, BRAIN, SMALL INTESTINE, KIDNEY AND COLON.
 CC -1- INDUCTION: BY IFN-GAMMA AND LIPOPOLYSACCHARIDE (LPS).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 C-C) (CHEMOKINE CC).
 DR EMBL: U50712; G1477582; -;
 DR EMBL: U66670; G1881583; -;
 DR MGD: MGI:108224; SCYAL2.
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
 FT SIGNAL 1 22 BY SIMILARITY.
 FT CHAIN 23 104 MONOCYTE CHEMOTACTIC PROTEIN 5.
 FT DISULFID 33 58 BY SIMILARITY.
 FT DISULFID 34 74 BY SIMILARITY.
 SO SEQUENCE 104 AA: 11659 MW: 08FA6C35 CRC32:
 Query Match 79.3%; Score 73; DB 1; Length 104;
 Best Local Similarity 81.8%; Pred. No. 8.35e-04;
 Matches 9; Conservative 0; Mismatches 2; Indels 0; Gaps 0;
 DB 72 EICADPKKKVQ 82
 1 EICADPSEEMVQ 11
 RESULT 22
 ID MIP4_HUMAN STANDARD; PRT: 89 AA.
 AC P55774;
 DT 01-NOV-1997 (REL. 35, CREATED)
 DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MACROPHAGE INFLAMMATORY PROTEIN 4 PRECURSOR (MIP-4) (PULMONARY AND
 DE ACTIVATED MACROPHAGE ASSOCIATED CC CHEMOKINE 1) (AMAC-1).
 GN SCV18 OR MIP4.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; PRIMATES.
 RN [1]

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RP SEQUENCE FROM N.A.
RA LI H., RUBEN S.;
RL PATENT NUMBER US5504003.
RN [2]
RP SEQUENCE FROM N.A., AND PARTIAL SEQUENCE.
RC TISSUE-AORTA, AND LUNG;
RX MEDLINE: 97376836.
RA HISHIMA K., IMAI T., BABA M., SHOUDAI K., ISHIZUKA K.,
RA NARAGAWA T., TSURUTA J., TAKEYA M., SAKAKI Y., TAKATSUKI K.,
RA MIRA R., OPDENAKKER G., VAN DAMME J., YOSHIE O., NOMIYAMA H.;
RL J. IMMUNOL. 159:1140-1149(1997).
RN [3]
RP SEQUENCE FROM N.A.
RA KOBELTA V., MOELLER C., POLITZ O., HAKIY N., ORPANOS C.E., GOERDT S.;
RL SUBMITTED (AUG-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [4]
RP DISCUSSION OF SEQUENCE.
RX MEDLINE: 97275308.
RA WELLS T.N.C., PEITSCH M.C.;
RL J. LEUKOC. BIOL. 61:545-550(1997).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS LYMPHOCYTES BUT NOT
CC MONOCYTES OR GRANULOCYTES. MAY BE INVOLVED IN B CELL MIGRATION
CC INTO B CELL FOLLICLES IN LYMPH NODES.
CC -1- TISSUE SPECIFICITY: EXPRESSED AT HIGH LEVELS IN THE LUNG. A LOWER
CC LEVEL EXPRESSION IS SEEN IN LYMPHOID TISSUES SUCH AS LYMPH NODES,
CC THYMUS AND APPENDIX.
CC -1- INDUCTION: BY LIPOPOLYSACCHARIDE (LPS).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: AB000221; D1022520; -.
DR EMBL: Y13710; E321838; -.
DR PROSITE: PS00472; SMALL_CYTOKINES.CC; 1.
KM CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
FT SIGNAL 1 20
FT CHAIN 21 89
FT DISULFID 30 54
FT DISULFID 31 70
FT DISULFID 31 70
SQ SEQUENCE 89 AA; 9849 MW; 052AA3DC CRC32;

Query Match 78.3%; Score 72; DB 1; Length 89;
Best Local Similarity 66.7%; Pred. No. 1.38e-03;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 68 QICADPNKKRWQ 79
QY 1 EICADPSEWVQ 12

RESULT 23
ID EOTR_HUMAN STANDARD: PRT: 97 AA.
AC P51671; P50877; Q92490; Q92491;
DT 01-OCT-1996 (REL. 34, CREATED)
DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
GN SCY11.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAEOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUHERIA; PRIMATES.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 96181758.
RA GARCIA-ZEPEDA E.A., ROTHENBERG M.E., OMNEY T.R., LEDER P.,
RA LUSTER A.D.;
RL NAT. MED. 2:449-456(1996).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 96189937.
RA POWATH P.D., QIN S., RINGLER D.J., CLARK-LEWIS I., WANG J., KASSAM N.,
RA SMITH H., SHI X., GONZALO J.A., NEWMAN W., GUTIERREZ-RAMOS J.C.,
RA MACKAY C.R.;
RL J. CLIN. INVEST. 97:604-612(1996).
RN [3]

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RP SEQUENCE FROM N.A.
RC TISSUE-SMALL INTESTINE;
RX MEDLINE: 96205964.
RA KITAUURA M., NAKAJIMA T., IMAI T., HARADA S., COMBADIERE C.,
RA TIFFANY H.L., MURPHY P.M., YOSHIE O.;
RL J. BIOL. CHEM. 271:7725-7730(1996).
RN [4]
RP SEQUENCE FROM N.A., SEQUENCE OF 60-65 AND 75-88, AND VARIANTS.
RC TISSUE-FORESKIN;
RX MEDLINE: 96374440.
RA BARRELS J., SCHLUETER C., RICHTER E., NOSO N., KULKE R.,
RA CHRISTOPHERS E., SCHROEDER J.M.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 225:1045-1051(1996).
RN [5]
RP SEQUENCE FROM N.A.
RC TISSUE-PLACENTA;
RX MEDLINE: 97312708.
RA GARCIA-ZEPEDA E.A., ROTHENBERG M.E., WEREMOWICZ S., SARAFI M.N.,
RA MORTON C.C., LUSTER A.D.;
RL GENOMICS 41:471-476(1997).
RN [6]
RP SEQUENCE FROM N.A.
RC TISSUE-LUNG;
RX MEDLINE: 97445071.
RA HEIN R., SCHLUETER C., KULKE R., CHRISTOPHERS E., SCHROEDER J.M.,
RA BARRELS J.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 237:537-542(1997).
CC -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLEGENS, THIS PROTEIN
CC DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT
CC FEATURE OF ALLERGIC INFLAMMATORY REACTIONS.
CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
CC -1- INDUCTION: BY TNF-ALPHA, IL-1-ALPHA AND INTERFERON GAMMA.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: U46573; G1280141; -.
DR EMBL: U34780; G1185440; -.
DR EMBL: D49372; G1552241; -.
DR EMBL: 269291; E221070; -.
DR EMBL: 275668; E251275; -.
DR EMBL: 275669; E251258; -.
DR EMBL: U46572; G2088509; -.
DR EMBL: 292709; E329504; -.
DR MIM: 601156; -.
DR PROSITE: PS00472; SMALL_CYTOKINES.CC; 1.
KM EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
KV INFLAMMATORY RESPONSE; POLYMORPHISM.
FT SIGNAL 1 23
FT CHAIN 24 97
FT DISULFID 32 57
FT DISULFID 33 73
FT VARIANT 7 7
FT VARIANT 23 23
FT VARIANT 51 51
FT VARIANT 79 79
SQ SEQUENCE 97 AA; 10732 MW; 6C0F3D98 CRC32;

Query Match 78.3%; Score 72; DB 1; Length 97;
Best Local Similarity 66.7%; Pred. No. 1.38e-03;
Matches 8; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

Db 71 DICADPKRRWQ 82
QY 1 EICADPSEWVQ 12

RESULT 24
ID MCPA_BOVIN STANDARD: PRT: 99 AA.
AC P28291;
DT 01-DEC-1992 (REL. 24, CREATED)
DT 01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
DT 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1A PRECURSOR (MCP-1A) (MCP-1) (ACIDIC

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DE SEMINAL FLUID PROTEIN).
OS BOS TAURUS (BOVINE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
CC EUTHERIA; ARTIODACTYLA.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-SEMINAL PLASMA;
RX MEDLINE; 92096117.
RA WEMPE F., HENSCHEN A., SCHEIT K.H.;
RL DNA CELL BIOL. 10:671-679(1991).
RN [2]
RP SEQUENCE FROM N.A.
RC TISSUE-SEMINAL PLASMA;
RX MEDLINE; 92181448.
RA WEMPE F., EINSPIANIER R., SCHEIT K.H.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 183:232-237(1992).
RN [3]
RP SEQUENCE FROM N.A.
RX MEDLINE; 9438337.
RA WEMPE F., KUHLMANN J.K., SCHEIT K.H.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 202:1272-1279(1994).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC NEUTROPHILS.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL; L32659; G624394; -.
DR EMBL; M84602; G163395; -.
DR PIR; A39296; A39296.
DR PIR; JC2336; JC2336.
DR HSSP; P13500; IMCA.
DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL.
FT SIGNAL 1 23 BY SIMILARITY.
FT CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 1A.
FT MOD_RES 24 24 PYROLIDONE CARBOXYLIC ACID (BY
FT SIMILARITY).
FT DISULFID 34 59 BY SIMILARITY.
FT DISULFID 35 75 BY SIMILARITY.
SQ SEQUENCE 99 AA; 1114 MW; C8F5821D CRC32;

Query Match 78.3%; Score 72; DB 1; Length 99;
Best Local Similarity 66.7%; Pred. No. 1.38e-03;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 73 ELCADPROMKVVQ 84
1 EICADPSEEWV 12

RESULT 25
ID M1LB_MOUSE STANDARD; PRT; 92 AA.
AC P14097;
DT 01-JAN-1990 (REL. 13, CREATED)
DT 01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MACROPHAGE INFLAMMATORY PROTEIN 1-BETA PRECURSOR (MIP-1-BETA) (H400
DE PROTEIN) (SIS-GAMMA) (ACT2).
GN SCYA4 OR MIP1B.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
CC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE; 89067830.
RA SHERY B., TEKAMP-OLSON P., GALLEGO C., BAUER D., DAVATELLIS G.,
RA WOPE S.D., MASTARZ F., COIT D., CERAMI A.;
RL J. EXP. MED. 168:2251-2259(1988).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE; 89093958.
RA BROWN K.D., ZURAWSKI S.M., MOSMANN T.R., ZURAWSKI G.;
RL J. IMMUNOL. 142:679-687(1989).
RN [3]

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RP SEQUENCE FROM N.A.
RC STRAIN-DBA/2J; TISSUE-LIVER;
RA DUBBERSIES P., LEPEPRE F., BAILLEUL B., GROVE M., PRAGNELL I.,
RA PLUMB M.A.;
RL SUBMITTED (OCT-1991) TO EMBL/GENBANK/DBJ DATA BANKS.
CC -1- FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES.
CC -1- SUBUNIT: HOMODIMER (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL; M23503; G533245; -.
DR EMBL; M35590; G196997; -.
DR EMBL; X62502; G53127; -.
DR PIR; G30552; C30552.
DR PIR; J10088; J10088.
DR HSSP; P13236; IHDM.
DR MGD; MGI:98261; SCYA4.
DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
FT SIGNAL 1 23
FT CHAIN 24 92
FT DISULFID 34 58 BY SIMILARITY.
FT DISULFID 35 74 BY SIMILARITY.
FT CONFLICT 75 75 A -> P (IN REF. 1).
FT CONFLICT 79 79 E -> Q (IN REF. 1).
FT CONFLICT 88 88 D -> H (IN REF. 1).
SQ SEQUENCE 92 AA; 10168 MW; C543B91F CRC32;

Query Match 77.2%; Score 71; DB 1; Length 92;
Best Local Similarity 72.7%; Pred. No. 2.26e-03;
Matches 8; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 72 QICAMPSEWV 82
1 EICADPSEEWV 11

RESULT 26
ID CCCL_HUMAN STANDARD; PRT; 93 AA.
AC Q16627;
DT 01-NOV-1997 (REL. 35, CREATED)
DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
DE CHEMOKINE CC-1 PRECURSOR (HCC-1) (NCC-2).
GN SCYA1 OR NCC2.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
CC EUTHERIA; PRIMATES.
RN [1]
RP SEQUENCE FROM N.A., AND SEQUENCE OF 20-93.
RC TISSUE-BONE MARROW;
RX MEDLINE; 96136773.
RA SCHULZ-KNAPPE P., MAEGERT H.-J., DEWALD B., MEYER M., CETIN Y.,
RA KUBBIES M., TOMECZKOWSKI J., KIRCHHOFF K., RAIDA M., ADERMANN K.,
RA KIST A., REINECKE M., SILLARD R., PARDIGOL A., UGUCCIONI M.,
RA BAGGIOLINI M., FORSMANN W.-G.;
RL J. EXP. MED. 183:295-299(1996).
RN [2]
RP SEQUENCE FROM N.A.
RC TISSUE-LIVER;
RA PARDIGOL A., MAEGERT H.-J., ZUCHT H.D., FORSMANN W.-G.,
RA SCHULZ-KNAPPE P.;
RL SUBMITTED (MAY-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [3]
RP SEQUENCE FROM N.A.
RC TISSUE-PLACENTA;
RA PARDIGOL A., MAEGERT H.-J., CIESIAK A., HILL O., SCHULZ-KNAPPE P.,
RA FORSMANN W.-G.;
RL SUBMITTED (OCT-1995) TO EMBL/GENBANK/DBJ DATA BANKS.
CC -1- FUNCTION: HAS WEAK ACTIVITIES ON HUMAN MONOCYTES AND ACTS VIA
CC RECEPTORS THAT ALSO RECOGNIZE MIP-1 ALPHA. IT INDUCED
CC INTRACELLULAR CA2+ CHANGES AND ENZYME RELEASE, BUT NO CHEMOTAXIS,
CC AT CONCENTRATIONS OF 100-1,000 NM, AND WAS INACTIVE ON T
CC LYMPHOCYTES, NEUTROPHILS, AND EOSINOPHIL LEUKOCYTES. ENHANCES THE

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MIRAGE (TM)

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Msrch_bp protein - protein database search, using Smith-Waterman algorithm

Run on: Thu Apr 1 07:39:27 1999; Maspar time 4.93 Seconds

Tabular output not generated. 134.366 Million cell updates/sec

Title: >US-08-927-939-12
Description: (1-12) from US08927939.pep
Perfect Score: 92
Sequence: 1 EICADPSEMWQ 12

Scoring table:
Gap 15
PAM 150

Searched: 180763 seqs, 55169189 residues

Post-processing: Minimum Match 0%
Listing first 100 summaries

Database:

sptrembl8
1:sp-archaea 2:sp-bacteria 3:sp-fungi 4:sp-human
5:sp_invertebrate 6:sp_mammal 7:sp_mhc 8:sp_organelle
9:sp_phase 10:sp_plant 11:sp_rodent 12:sp_unclassified
13:sp_vertebrate 14:sp_virus

Statistics: Mean 25.394; Variance 35.421; scale 0.717

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description	Pred. No.
1	87	94.6	80	4	014745 LD78 ALPHA BETA PRECUR	2.41e-06
2	80	87.0	120	4	015467 IL-10-INDUCIBLE CHEMOK	8.89e-05
3	72	78.3	119	4	000175 MP1F-2.	4.70e-03
4	72	78.3	133	11	009002 SMALL INDUCIBLE CYTORI	4.70e-03
5	72	78.3	133	11	009006 BETA CHEMOKINE EXODUS-	4.70e-03
6	71	77.2	95	14	098158 ORF K6.	7.62e-03
7	71	77.2	134	4	000585 BETA CHEMOKINE EXODUS-	7.62e-03
8	68	73.9	395	11	035933 FRACTALINE.	3.18e-02
9	68	73.9	395	11	035188 NEUROSTATIN.	3.18e-02
10	67	72.8	92	11	088430 CC CHEMOKINE ABCD-1.	5.09e-02
11	66	71.7	109	4	043927 CX3C CHEMOKINE PRECURS	8.11e-02
12	65	70.7	397	4	P78423 CX3C CHEMOKINE PRECURS	1.29e-01
13	64	69.6	97	11	089093 CC CHEMOKINE ST38 PREC	2.04e-01
14	63	68.5	93	4	000626 MACROPHAGE-DERIVED CHE	3.21e-01
15	61	66.3	94	14	058157 VMIP-1B.	7.87e-01
16	61	66.3	97	13	057411 LYMPHOTACTIN PRECURSOR	7.87e-01
17	60	65.3	203	14	067634 ECO Q PROTEIN (FRAGMEN	7.87e-01
18	60	65.2	96	11	P97884 CC CHEMOKINE EXODUS.	1.22e+00
19	60	65.2	104	13	073912 K60 PROTEIN PRECURSOR.	1.22e+00
20	60	65.2	2180	5	001768 SIMILARITY TO EGF-LIKE	1.22e+00

21	59	64.1	91	4	043646 RANTES PRECURSOR.	1.90e+00
22	59	64.1	97	6	062812 INTERLEUKIN-8 (FRAGMEN	1.90e+00
23	59	64.1	448	2	P95531 LARGE SUBUNIT OF TETRI	1.90e+00
24	59	64.1	570	11	061093 CYTOCHROME B-245, BETA	1.90e+00
25	58	63.0	95	4	099664 CHEMOKINE EXODUS.	2.93e+00
26	58	63.0	552	5	046178 RADIAL SPOKEHEAD.	2.93e+00
27	57	62.0	96	13	090825 CYTOKINE.	4.99e+00
28	57	62.0	321	2	069128 PUTATIVE EPIMERASE/DEH	4.99e+00
29	57	62.0	629	5	P91819 RNA POLYMERASE II LARG	4.99e+00
30	57	62.0	1142	4	Q14324 FAST MBP-C.	4.99e+00
31	56	60.9	857	13	P79708 LOW-DENSITY LIPOPROTEI	6.86e+00
32	56	60.9	1089	5	026155 V-SERA 1.	6.86e+00
33	55	59.8	101	13	093442 LFC-1 PROTEIN PRECURS	1.04e+01
34	55	59.8	108	11	070460 EBI-1 LIGAND CHEMOKINE	1.04e+01
35	55	59.8	109	11	055038 B LYMPHOCYTE CHEMOTACT	1.04e+01
36	55	59.8	306	5	023084 COSMID ZC8.	1.04e+01
37	55	59.8	949	5	P90956 TOLD3 3.	1.04e+01
38	54	58.7	158	5	026381 BTN-HOMEODOMAIN GENE B	1.58e+01
39	54	58.7	399	14	068409 ORF UL154.	1.58e+01
40	54	58.7	801	6	062817 LOW DENSITY LIPOPROTEI	1.58e+01
41	54	58.7	801	6	077619 T24B8.7 PROTEIN.	1.58e+01
42	54	58.7	1396	5	P90865 TYPE 14 (HRV14), COMPL	2.38e+01
43	53	57.6	146	14	084738 14 (HRV-14), RNA SEQUE	2.38e+01
44	53	57.6	146	14	084776 VIF PROTEIN.	2.38e+01
45	53	57.6	252	14	P99687 R08H2.2.	2.38e+01
46	53	57.6	339	5	017996 T22D1.12 PROTEIN.	2.38e+01
47	53	57.6	391	5	044690 MYOSIN BINDING PROTEIN	2.38e+01
48	53	57.6	476	4	016886 LARGE SUBUNIT RNA POLY	2.38e+01
49	53	57.6	633	5	001364 C54D1.6 PROTEIN.	2.38e+01
50	53	57.6	811	5	018825 CC CHEMOKINE-1.	3.55e+01
51	52	56.5	101	13	093238 CONSERVED HYPOTHETICAL	3.55e+01
52	52	56.5	176	1	029296 MYOSIN BINDING PROTEIN	3.55e+01
53	52	56.5	477	4	Q13203 MYOSIN BINDING PROTEIN	3.55e+01
54	52	56.5	483	11	P70402 TOLENE-3-MONOOXYGENAS	3.55e+01
55	52	56.5	501	2	051939 MYOSIN BINDING PROTEIN	3.55e+01
56	52	56.5	537	13	P005623 RNA POLYMERASE II LARG	3.55e+01
57	52	56.5	631	5	P90678 PROTEASE, SERINE, 12 N	3.55e+01
58	52	56.5	761	11	008762 ENVELOPE GLYCOPROTEIN	3.55e+01
59	52	56.5	859	14	097013 NEUROPLIN 2.	3.55e+01
60	52	56.5	901	11	035376 NEUROPLIN 2.	3.55e+01
61	52	56.5	906	11	035377 NEUROPLIN 2.	3.55e+01
62	52	56.5	909	4	014820 NEUROPLIN 2.	3.55e+01
63	52	56.5	909	4	035373 NEUROPLIN 2.	3.55e+01
64	52	56.5	914	11	035378 NEUROPLIN 2.	3.55e+01
65	52	56.5	925	11	035276 NEUROPLIN 2.	3.55e+01
66	52	56.5	926	11	035374 NEUROPLIN 2.	3.55e+01
67	52	56.5	926	11	014821 NEUROPLIN 2.	3.55e+01
68	52	56.5	931	11	035375 NEUROPLIN 2.	3.55e+01
69	52	56.5	931	4	060462 VASCULAR ENDOTHELIAL C	3.55e+01
70	52	56.5	4199	2	P74440 HYPOTHETICAL 442.4 KD	5.29e+01
71	51	55.4	193	2	054993 CELL MYCELITUM-ASSOCIAT	5.29e+01
72	51	55.4	305	2	068920 ERN1.	5.29e+01
73	51	55.4	350	11	009132 PROTEIN TYROSINE KINAS	5.29e+01
74	51	55.4	377	3	060088 HYPOTHETICAL 41.6 KD P	5.29e+01
75	51	55.4	489	10	049123 1-Aminocyclopropane-1-	5.29e+01
76	51	55.4	497	2	087082 ALKANE MONOOXYGENASE.	5.29e+01
77	51	55.4	522	5	061090 SERINE RICH PROTEIN HO	5.29e+01
78	51	55.4	617	5	002259 F44E1.1.	5.29e+01
79	51	55.4	991	4	015043 KAO0333 (FRAGMENT).	5.29e+01
80	50	54.3	112	9	038665 NINK PROTEIN.	7.82e+01
81	50	54.3	125	14	088491 NONSTROCAL PROTEIN	7.82e+01
82	50	54.3	167	2	007858 TRANSPOSASE.	7.82e+01
83	50	54.3	167	2	047302 INSR.	7.82e+01
84	50	54.3	158	14	093045 31.5 KD REPA PROTEIN (7.82e+01
85	50	54.3	258	14	093048 31.5 KD REPA PROTEIN (7.82e+01
86	50	54.3	258	14	073466 31.5 KD REPA PROTEIN (7.82e+01
87	50	54.3	272	14	039668 31.5 KD REPA PROTEIN.	7.82e+01
88	50	54.3	272	14	083479 31.5 KD REPA PROTEIN.	7.82e+01
89	50	54.3	272	14	073558 31.5 KD REPA PROTEIN.	7.82e+01
90	50	54.3	272	14	073478 31.5 KD REPA PROTEIN.	7.82e+01
91	50	54.3	342	14	055834 NS5 PROTEIN (FRAGMENT)	7.82e+01
92	50	54.3	358	14	088520 GENES FOR US1, US10, U	7.82e+01
93	50	54.3	390	10	040625 DNA-BINDING FACTOR OF	7.82e+01

94 50 54.3 590 10 023316 HYPOTHETICAL 65.7 KD P 7.82e+01
95 50 54.3 822 2 056939 HMBL 7.82e+01
96 50 54.3 1123 4 015497 SLOW MYBP-C. 7.82e+01
97 50 54.3 1134 5 P19312 SIMILAR TO CALCIUM-ACT 7.82e+01
98 50 54.3 1465 4 Q13018 180 KD SECRETORY PHOS 7.82e+01
99 50 54.3 6875 6 028733 TITIN (FRAGMENT). 7.82e+01
100 50 54.3 26926 4 Q10466 TITIN, HEART ISOFORM N 7.82e+01

ALIGNMENTS

RESULT 1
ID 014745 PRELIMINARY; PRT: 80 AA.
AC 014745;
DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE LB78 ALPHA BETA PRECURSOR (FRAGMENT).
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-BRAIN;
RA ISHIZUKA K., IGATA-YI R., NARUSE K., NAKASHIMA H., OHUCHI K.,
RA KATSURAGI S., KIN Y., OHMOTO Y., NOMIYAMA H., ITO M., MIURA R.,
RA MIYAKAWA T.,
RL SUBMITTED (AUG-1995) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: D63785; G961440; -
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
DR PFAM: PF00048; 118; 1.
KM SIGNAL.
FT NON_TER 1 1
FT SIGNAL <1 16 POTENTIAL.
FT CHAIN 17 >80 LD78 ALPHA BETA.
FT NON_TER 80 80
SQ SEQUENCE 80 AA; 8857 MW; 387F1C6 CRC32;

Query Match 94.6%; Score 87; DB 4; Length 80;
Best Local Similarity 83.3%; Pred. No. 2.41e-06;
Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 65 QVCADPSEWVQ 76
QY 1 EICADPSEWVQ 12

RESULT 2
ID 015467 PRELIMINARY; PRT: 120 AA.
AC 015467;
DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE IL-10-INDUCIBLE CHEMOKINE.
GN IL10 OR SCYA16.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RA HEDRICK J.A., HELMS A., GORMAN D., ZLOTNIK A.;
RL SUBMITTED (NOV-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]
RP SEQUENCE FROM N.A.
RC TISSUE=LIVER;
RA SHOUDDI K., HIESHIMA K., FUKUDA S., ITO M., MIURA R., IMAI T.,
RA YOSHIE O., NOMIYAMA H.;
RL BIOCHIM. BIOPHYS. ACTA 0:0-0(1998).
RN [3]
RP SEQUENCE FROM N.A.
RA NOMIYAMA H.;
RT "Structure of a region of 181 kb containing five CC chemokine genes."
RL SUBMITTED (AUG-1998) TO EMBL/GENBANK/DBJ DATA BANKS.

RN [4]
RP SEQUENCE FROM N.A.
RX MEDLIN: 98308096.
RA YOUN B.S., ZHANG S., BROOMEYER H.E., ANTOL K., FRASER M.J. JR.,
RA HANGOC G., KWON B.S.;
RT "Isolation and characterization of lmc, a novel lymphocyte and
RT monocyte chemoattractant human CC chemokine, with myelosuppressive
RT activity."
RL BIOCHEM. BIOPHYS. RES. COMMUN. 247:217-222(1998).
DR EMBL: U91746; G2581781; -
DR EMBL: AB007454; D1024963; -
DR EMBL: AF088219; G3719365; -
DR EMBL: AF055467; G3395776; -
DR PFAM: PF00048; 118; 1.
KM SIGNAL.
SQ SEQUENCE 120 AA; 13600 MW; A079DF66 CRC32;

Query Match 87.0%; Score 80; DB 4; Length 120;
Best Local Similarity 50.0%; Pred. No. 8.89e-05;
Matches 6; Conservative 6; Mismatches 0; Indels 0; Gaps 0;

Db 74 EVCNPNDDWVQ 85
QY 1 EICADPSEWVQ 12

RESULT 3
ID 000175 PRELIMINARY; PRT: 119 AA.
AC 000175;
DT 01-JUL-1997 (TREMBLREL. 04, CREATED)
DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE MPEF-2.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RA PATEL V.P., KREIDER B.L., LI Y., LI H., LEUNG K., SALCEDO T.,
RA MARDELLI B., PIPPALA V., GENTZ S., THOTAKURA R., PARMELEE D.,
RA GENTZ R., GAROTTA G.;
RL J. EXP. MED. 0:0-0(0).
DR EMBL: U85768; G1916252; -
DR PFAM: PF00048; 118; 1.
SQ SEQUENCE 119 AA; 13119 MW; CDF526F0 CRC32;

Query Match 78.3%; Score 72; DB 4; Length 119;
Best Local Similarity 58.3%; Pred. No. 4.70e-03;
Matches 7; Conservative 4; Mismatches 1; Indels 0; Gaps 0;

Db 72 QFCGDPKQEWVQ 83
QY 1 EICADPSEWVQ 12

RESULT 4
ID 009002 PRELIMINARY; PRT: 133 AA.
AC 009002;
DT 01-JUL-1997 (TREMBLREL. 04, CREATED)
DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE SMALL INDUCIBLE CYTOKINE A21 (TCA4).
GN SCYA21.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCURIONGNATHI; MURIDAE; MURINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=THYMUS;
RA TANABE S., LU Z., LUO Y., OUCHKENBUSH E.J., BERMAN M.A.,
RA COLLINS-RACIE L.A., REILLY C., LO D., JACOBS K.A., DORF M.E.;
RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]

RP SEQUENCE FROM N.A.
RX MEDLINE: 97400322.
RA HEDRICK J.A., ZLOTNIK A.;
RT "Identification and characterization of a novel beta chemokine
containing six conserved cysteines."
RL J. IMMUNOL. 159:1589-1593(1997).
RN [3]
RP SEQUENCE FROM N.A.
RA HEDRICK J.A., ZLOTNIK A.;
RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: AF006637; G2209189; -
DR EMBL: AF001980; G2624927; -
DR MGD: MGI:1097677; SCYA21.
DR PFAM: PF00048; 118; 1.
SQ SEQUENCE 133 AA; 14558 MW; C0532523 CRC32;

Query Match 78.3%; Score 72; DB 11; Length 133;
Best Local Similarity 66.7%; Pred. No. 4.70e-03;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 73 EICANPEGWQ 84
1 EICADPSEWQ 12

RESULT 5
ID 009006; PRELIMINARY; PRT; 133 AA.
AC 009006;
DT 01-JUL-1997 (TREMBLREL. 04, CREATED)
DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE BETA CHEMOKINE EXODUS-2.
GN SCYA21.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCUROGNATHI; MURIDAE; MURINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-TOTAL FETUS;
RX HROMAS R., KIM C.H., KLEMSZ M., KRATHMOHL M., FIFE K., COOPER S.,
RA SCHNITZLEIB-BICK C., BROKMEYER H.E.;
RT "Isolation and characterization of Exodus-2, a novel C-C chemokine
with a unique 37-amino acid carboxyl-terminal extension."
RL J. IMMUNOL. 159:2534-2538(1997).
RN [2]
RP SEQUENCE FROM N.A.
RC TISSUE-TOTAL FETUS;
RA HROMAS R.A.;
RL SUBMITTED (JUN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: U88322; G3169697; -
DR MGD: MGI:1097677; SCYA21.
DR PFAM: PF00048; 118; 1.
SQ SEQUENCE 133 AA; 14600 MW; B34A5E22 CRC32;

Query Match 78.3%; Score 72; DB 11; Length 133;
Best Local Similarity 66.7%; Pred. No. 4.70e-03;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 73 EICANPEGWQ 84
1 EICADPSEWQ 12

RESULT 6
ID 098158; PRELIMINARY; PRT; 95 AA.
AC 098158; 012569;
DT 01-FEB-1997 (TREMBLREL. 02, CREATED)
DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE ORF K6.
OS KAPOSI'S SARCOMA-ASSOCIATED HERPESVIRUS.
OC VIRUSES; DSDNA VIRUSES, NO RNA STAGE; HERPESVIRIDAE;

OC GAMMAHERPESVIRINAE; RHADINOVIRUS.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 97094384.
RA MOORE P.S., BASHOFF C., WEISS R.A., CHANG Y.;
RT "Molecular mimicry of human cytokine and cytokine response pathway
genes by KSHV."
RL SCIENCE 274:1739-1744(1996).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 97121480.
RA RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
RA PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
RT "Nucleotide sequence of the Kaposi sarcoma-associated herpesvirus
(HHV8)."
RL PROC. NATL. ACAD. SCI. U.S.A. 93:14862-14867(1996).
RN [3]
RP SEQUENCE FROM N.A.
RA RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
RA PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
RL SUBMITTED (OCT-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [4]
RP SEQUENCE FROM N.A.
RA NICHOLAS J., RUYOLO V.R., BURNS W.H., SANDFORD G., WAN X., CIUFFO D.,
RA HENDRICKSON S., GUO H.G., HAYWARD G.S., REITZ M.S.;
RL SUBMITTED (NOV-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [5]
RP SEQUENCE FROM N.A.
RA RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
RA PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [6]
RP SEQUENCE FROM N.A.
RX MEDLINE: 97296220.
RA NEIPEL F., ALBRECHT J.C., FLOCKENSTEIN B.;
RT "Cell-homologous genes in the Kaposi's sarcoma-associated rhadinovirus
human herpesvirus 8: determinants of its pathogenicity?";
RL J. VIROL. 71:4187-4192(1997).
RN [7]
RP SEQUENCE FROM N.A.
RA SUN R., LIN S.-F., MILLER G.;
RL SUBMITTED (SEP-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: U75698; G1718266; -
DR EMBL: U74585; G1658273; -
DR EMBL: U93872; G2246546; -
DR EMBL: U71366; G3551763; -
DR PFAM: PF00048; 118; 1.
KV HYPOTHETICAL PROTEIN.
SQ SEQUENCE 95 AA; 10485 MW; 5283348D CRC32;

Query Match 77.2%; Score 71; DB 14; Length 95;
Best Local Similarity 66.7%; Pred. No. 7.62e-03;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 74 QICADPSKNVR 85
1 EICADPSEWQ 12

RESULT 7
ID 000585; PRELIMINARY; PRT; 134 AA.
AC 000585;
DT 01-JUL-1997 (TREMBLREL. 04, CREATED)
DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE BETA CHEMOKINE EXODUS-2.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RA HROMAS R.A., GRAY P., KLEMSZ M., FIFE K., BROKMEYER H.;
RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.

[2]
RN SEQUENCE FROM N.A.
RP MEDLINE; 97400322.
RX HEDRICK J.A., ZLOTNIK A.;
RT "Identification and characterization of a novel beta chemokine
containing six conserved cysteines.";
RL J. IMMUNOL. 159:1589-1593(1997).
RN [3]
RP SEQUENCE FROM N.A.
RA HEDRICK J.A., ZLOTNIK A.;
RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [4]
RP SEQUENCE FROM N.A.
RA NAGIRA M., IMAI T., HISHIMA K., KUSUDA J., RIDANPAA M., TAKAGI S.,
RA NISHIMURA M., KAKIZAKI M., NOMIYAMA H., YOSHIE O.;
RL SUBMITTED (AUG-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; U88320; G2196920; -
DR EMBL; AF001979; G2624925; -
DR EMBL; AB002409; D1022673; -
DR PFAM; PF00048; 118; 1.
SQ SEQUENCE 134 AA; 14646 MW; FE86A239 CRC32;

Query Match 77.2%; Score 71; DB 4; Length 134;
Best Local Similarity 75.0%; Pred. No. 7.62e-03;
Matches 9; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 73 FCADPKKRWQ 84
OY 1 EICADPSEWQ 12
:|||||

RESULT 8
ID 035933 PRELIMINARY; PRT; 395 AA.
AC 035933;
DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE FRACALKINE.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
RN SCUROGNATHI; MURIDAE; MURINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RA STRAIN-BALB/C; TISSUE-BRAIN;
RA ROSSI D., HARDYMAN G., COPELAND N., GILBERT D.J., JENKINS N.,
RA ZLOTNIK A., BAZAN J.F.;
RL SUBMITTED (MAR-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; U92565; G2459677; -
DR PFAM; PF00048; 118; 1.
SQ SEQUENCE 395 AA; 42040 MW; 3997A113 CRC32;

Query Match 73.9%; Score 68; DB 11; Length 395;
Best Local Similarity 72.7%; Pred. No. 3.18e-02;
Matches 8; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 73 FCADPKKRWQ 83
OY 2 ICADPSEWQ 12
:|||||

RESULT 9
ID 035188 PRELIMINARY; PRT; 395 AA.
AC 035188;
DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE NEUROSTATIN.
GN SCYD1.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
RN SCUROGNATHI; MURIDAE; MURINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.

RX MEDLINE; 97320499.
RA PAN Y., CLARE L., HONG Z., DOLICH S., DEEDS J., GONZALO J., VATH J.,
RA GOSSELIN M., MA J., DUSSAULT B., WOLFF B., ALPERIN A., CULPEPPER J.,
RA GUTIERREZ-RAMOS J.C., GEARING D.;
RT "Neurostatin, a membrane-anchored chemokine upregulated in brain
inflammation.";
RL NATURE 387:611-617(1997).
DR EMBL; AF010586; G2317698; -
DR MGD; MGI:1097153; SCYD1.
DR PFAM; PF00048; 118; 1.
SQ SEQUENCE 395 AA; 42098 MW; E3CD0612 CRC32;

Query Match 73.9%; Score 68; DB 11; Length 395;
Best Local Similarity 72.7%; Pred. No. 3.18e-02;
Matches 8; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 73 FCADPKKRWQ 83
OY 2 ICADPSEWQ 12
:|||||

RESULT 10
ID 088430 PRELIMINARY; PRT; 92 AA.
AC 088430;
DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE CC CHEMOKINE ABCD-1.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
RN RODENTIA; SCUROGNATHI; MURIDAE; MURINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RA TISSUE-LIVER;
RX MEDLINE; 98353531.
RA SCHANEL C., PARDALE E., SALTUSTO F., SPELETAS M., RUEDL C.,
RA SHIMIZU T., SEIDL T., ANDERSSON J., MELCHERS F., ROLINK A.G.,
RA SIDERAS P.;
RT "Activated murine B lymphocytes and dendritic cells produce a novel
CC chemokine which acts selectively on activated T cells.";
RL J. EXP. MED. 188:451-463(1998).
DR EMBL; AF052505; G3378116; -
SQ SEQUENCE 92 AA; 10302 MW; BC7219A0 CRC32;

Query Match 72.8%; Score 67; DB 11; Length 92;
Best Local Similarity 63.6%; Pred. No. 5.09e-02;
Matches 7; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 74 DICADPROVW 84
OY 1 EICADPSEWQ 11
:|||||

RESULT 11
ID 043927 PRELIMINARY; PRT; 109 AA.
AC 043927;
DT 01-JUN-1998 (TREMBLREL. 06, CREATED)
DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE CXC CHEMOKINE PRECURSOR.
GN BGA-1.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
RN CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RA LEGLER D.F., LOETSCHER M., STUBER ROOS R., CLARK-LEWIS I.,
RA BAGGIOLINI M., MOSER B.;
RT "B cell-attracting chemokine 1, a human CXC chemokine expressed in
lymphoid tissues, selectively attracts B lymphocytes via BLR1/CXCR5.";
RL J. EXP. MED. 187:655-660(1998).
RN [2]

RP SEQUENCE FROM N.A.
RX MEDLINE: 98146056.
RA GUNN M.D., NGO V.N., ANSEL K.M., EXLAND E.H., CYSTER J.G.,
RA WILLIAMS L.T.;
RT "A B-cell-homing chemokine made in lymphoid follicles activates
RT Burkitt's lymphoma receptor-1.";
RL NATURE 391:799-803(1998).
RN [3]
RP SEQUENCE FROM N.A.
RA NAPOLITANO M., SPINETTI G., GAETANO C., CAPOGROSSI C.M.;
RL SUBMITTED (OCT-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: AJ002211; E1249325; -
DR EMBL: AF044197; G2911376; -
DR EMBL: AF029894; G3169814; -
KM SIGNAL.
FT SIGNAL.
FT CHAIN 23 109 POTENTIAL.
SQ SEQUENCE 109 AA; 12664 MW; B5A46BC CRC32;

Query Match 71.7%; Score 66; DB 4; Length 109;
Best Local Similarity 54.5%; Pred. No. 8.11e-02;
Matches 6; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

Db 75 VCVDPOAEMIO 85
QY 2 ICADPSEEWV 12

RESULT 12
ID P78423 PRELIMINARY; PRT; 397 AA.
AC P78423: 000672;
DT 01-MAY-1997 (TREMBLER, 03, CREATED)
DT 01-MAY-1997 (TREMBLER, 03, LAST SEQUENCE UPDATE)
DE 01-NOV-1998 (TREMBLER, 08, LAST ANNOTATION UPDATE)
DE CX3C CHEMOKINE PRECURSOR.
GN A-1525.2.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 9717711.
RA BAZAN J.F., BACON K.B., HARDIMAN G., WANG W., SOO K., ROSSI D.,
RA GREAVES D.R., ZLOTNIK A., SCHALL T.J.;
RT "A new class of membrane-bound chemokine with a CX3C motif.";
RL NATURE 385:640-644(1997).
RN [2]
RP SEQUENCE FROM N.A.
RA ADAMS M.D., LOFTUS B.J., ZHOU L., CROSBY M., FUHRMANN J., MASON T.M.,
RA BRANDON R., KIM U.J., KERLAVAGE A.R., VENTER J.C.;
RT "Homo sapiens Chromosome 16 BAC clone C17987SK-A-1525.";
RL SUBMITTED (JUN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: U91835; G1899259; -
DR EMBL: U84487; G1888523; -
DR EMBL: AC004382; G3252821; -
DR PFAM: PF00048; 118; 1.
KM SIGNAL.
FT SIGNAL.
FT CHAIN 25 397 CX3C CHEMOKINE.
SQ SEQUENCE 397 AA; 42202 MW; C8093DD CRC32;

Query Match 70.7%; Score 65; DB 4; Length 397;
Best Local Similarity 70.0%; Pred. No. 1.29e-01;
Matches 7; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 73 FCADPKKOWV 82
QY 2 ICADPSEEWV 11

RESULT 13
ID 089093 PRELIMINARY; PRT; 97 AA.
AC 089093;

DT 01-NOV-1998 (TREMBLER, 08, CREATED)
DT 01-NOV-1998 (TREMBLER, 08, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLER, 08, LAST ANNOTATION UPDATE)
DE CC CHEMOKINE ST38 PRECURSOR.
GN LARC.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
OC RODENTIA; SCIROGNATHI; MORIDAE; MORINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RA UTANS-SCHNEITZ U., LOREZ H., KLINKERT W.E.F., DA SILVA J.,
RA LESSAUER W.;
RT "A novel rat CC chemokine, identified by targeted differential
RT display, is upregulated in brain inflammation.";
RL J. NEUROIMMUNOL. 0:0-0(1998).
RN [2]
RP SEQUENCE FROM N.A.
RA VILLARES R.;
RL SUBMITTED (JUL-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: AF053113; G3551819; -
DR EMBL: AJ007862; E1312757; -
KM SIGNAL.
FT SIGNAL.
FT CHAIN 1 27 POTENTIAL.
SQ SEQUENCE 97 AA; 10826 MW; 053405BD CRC32;

Query Match 69.6%; Score 64; DB 11; Length 97;
Best Local Similarity 60.0%; Pred. No. 2.04e-01;
Matches 6; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 74 VCADPKKOWV 83
QY 2 ICADPSEEWV 11

RESULT 14
ID 000626 PRELIMINARY; PRT; 93 AA.
AC 000626;
DT 01-JUL-1997 (TREMBLER, 04, CREATED)
DT 01-JUL-1997 (TREMBLER, 04, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLER, 08, LAST ANNOTATION UPDATE)
DE MACROPHAGE-DERIVED CHEMOKINE PRECURSOR.
GN MDC OR A-1525.1.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RA GODISKA R., CHANTRY D., RAPORT C.J., SOZZANI S., ALLAYENA P.,
RA MANTOVANI A., GRAY P.W.;
RL J. EXP. MED. 185:0-0(0).
RN [2]
RP SEQUENCE FROM N.A.
RA CHANG M.S., MCNINCH J., ELINS III C., MANTHEY C.L., GROSSHANS D.,
RA MENG T., BOONE T., ANDREW D.P.;
RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [3]
RP SEQUENCE FROM N.A.
RA ADAMS M.D., LOFTUS B.J., ZHOU L., CROSBY M., FUHRMANN J., MASON T.M.,
RA BRANDON R., KIM U.J., KERLAVAGE A.R., VENTER J.C.;
RT "Homo sapiens Chromosome 16 BAC clone C17987SK-A-1525.";
RL SUBMITTED (JUN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: U83171; G1931581; -
DR EMBL: U83239; G2062425; -
DR EMBL: AC004382; G3252820; -
DR PFAM: PF00048; 118; 1.
KM SIGNAL.
FT SIGNAL.
FT CHAIN 25 93 POTENTIAL.
SQ SEQUENCE 93 AA; 10580 MW; 65EA63D2 CRC32;

Query Match 68.5%; Score 63; DB 4; Length 93;
Best Local Similarity 72.7%; Pred. No. 3.21e-01;

Matches 8; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Db 74 EICADPRVPMV 84

OY 1 EICADPSEEMV 11

RESULT 15

ID 098157 PRELIMINARY; PRT; 94 AA.

AC 098157; (TREMBLREL. 02, CREATED)

DT 01-FEB-1997 (TREMBLREL. 02, LAST SEQUENCE UPDATE)

DE 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)

DE VMD-1B

OS KAPOSI'S SARCOMA-ASSOCIATED HERPES-LIKE VIRUS,

AND KAPOSI'S SARCOMA-ASSOCIATED HERPESVIRUS.

OC VIRUSES: DSDNA VIRUSES, NO RNA STAGE; HERPESVIRIDAE;

GAMMAHERPESVIRINAE; RHADINOVIRUS.

RM [1]

RA NICHOLAS J., RUVOLO V.R., BURNS W.H., SANDFORD G., WAN X., CIUFFO D.,

RA HENDRICKSON S., GUO H.G., HAYWARD G.S., REITZ M.S.;

RL SUBMITTED (SEP-1996) TO EMBL/GENBANK/DBJ DATA BANKS.

RN [2]

RP SEQUENCE FROM N.A.

RX MEDLINE: 97094384.

RA MOORE P.S., BASHOFF C., WEISS R.A., CHANG Y.;

RT "Molecular mimicry of human cytokine and cytokine response pathway

genes by KSHV.";

RL SCIENCE 274:1739-1744(1996).

RN [3]

RP SEQUENCE FROM N.A.

RX MEDLINE: 97121480.

RA RUSSO J.J., BOHENZKY R.A., CHEN M.C., CHEN J., YAN M., MADDALENA D.,

RA PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;

RT "Nucleotide sequence of the Kaposi sarcoma-associated herpesvirus

(HHV8).";

RL PROC. NATL. ACAD. SCI. U.S.A. 93:14862-14867(1996).

RN [4]

RP SEQUENCE FROM N.A.

RX RUSSO J.J., BOHENZKY R.A., CHEN M.C., CHEN J., YAN M., MADDALENA D.,

RA PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;

RL SUBMITTED (OCT-1996) TO EMBL/GENBANK/DBJ DATA BANKS.

RN [5]

RP SEQUENCE FROM N.A.

RX NEPEL F., ALBRECHT J.C., FLECKENSTEIN B.;

RT "Cell-homologous genes in the Kaposi's sarcoma-associated rhadinovirus

human herpesvirus 8: determinants of its pathogenicity?";

RL J. VIROL. 71:4187-4192(1997).

RN [7]

RP SEQUENCE FROM N.A.

RA SUN R., LIN S.-F., MILLER G.;

RL SUBMITTED (SEP-1996) TO EMBL/GENBANK/DBJ DATA BANKS.

DR EMBL: U67775; G1562496; -

DR EMBL: U75698; G1718264; -

DR EMBL: U93872; G2246517; -

DR EMBL: U71365; G3551760; -

DR PFAM: PF00048; 118; 1.

KW HYPOTHETICAL PROTEIN.

SQ SEQUENCE 94 AA; 10486 MW; 91312200 CRC32;

Query Match 66.3%; Score 61; DB 14; Length 94;

Best Local Similarity 54.5%; Pred. No. 7.87e-01;

Matches 6; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Db 72 OVCADSKDMV 82

OY 1 EICADPSEEMV 11

OY 1 EICADPSEEMV 11

RESULT 16

ID 057411 PRELIMINARY; PRT; 97 AA.

AC 057411; (TREMBLREL. 06, CREATED)

DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)

DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)

DE LYMPHOTACTIN PRECURSOR.

OS GALLUS GALLUS (CHICKEN).

OC EUKARYOTA: METAZOA: CHORDATA: VERTEBRATA: ARCHOSAURIA: AVES;

OC NEOGNATHA: GALLIFORMES; PHASIANIDAE; PHASIANINAE; GALLUS.

RN [1]

RP SEQUENCE FROM N.A.

RC TISSUE-SPLEEN.

RA ROSSI D.L., BAZAN J.F., ZLOTNIK A.;

RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.

DR EMBL: AF006742; G2827882; -

KW SIGNAL.

FT SIGNAL.

FT CHAIN

SQ SEQUENCE 97 AA; 11131 MW; 3290101C CRC32;

Query Match 66.3%; Score 61; DB 13; Length 97;

Best Local Similarity 54.5%; Pred. No. 7.87e-01;

Matches 6; Conservative 1; Mismatches 4; Indels 0; Gaps 0;

Db 72 ICVHPEQKMWQ 82

OY 2 ICADPSEEMV 12

RESULT 17

ID 067634 PRELIMINARY; PRT; 203 AA.

AC 067634; (TREMBLREL. 01, CREATED)

DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)

DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)

DE ECO Q PROTEIN (FRAGMENT).

OS GALLUS GALLUS (CHICKEN).

OC VIRUSES: DSDNA VIRUSES, NO RNA STAGE; HERPESVIRIDAE;

OC ALPHAHERPESVIRINAE; VARICELLOVIRUS.

RN [1]

RP SEQUENCE FROM N.A.

RX STRAIN-GA;

RA PENG O., ZENG M., BHUIYAN Z.A., UBOKATA E., TANAKA A., NONOYAMA M.,

RA SHIRAZI Y.;

RT "Isolation and characterization of Marek's disease virus (MDV) CDNA

mapping to the BamHI-12, BamHI-Q2, and BamHI-L fragments of the MDV

genome from lymphoblastoid cells transformed and persistently infected

RT with MDV.";

RL VIROLOGY 213:590-599(1995).

DR EMBL: U34966; G1185444; -

DR PFAM: PF00048; 118; 1.

FT NON_TER

SQ SEQUENCE 203 AA; 23132 MW; 887D04C3 CRC32;

Query Match 66.3%; Score 61; DB 14; Length 203;

Best Local Similarity 54.5%; Pred. No. 7.87e-01;

Matches 6; Conservative 1; Mismatches 4; Indels 0; Gaps 0;

Db 145 VCVDEAPPMVQ 155

OY 2 ICADPSEEMV 12

RESULT 18

ID P97884 PRELIMINARY; PRT; 96 AA.

AC P97884; (TREMBLREL. 03, CREATED)

DT 01-MAY-1997 (TREMBLREL. 03, LAST SEQUENCE UPDATE)

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01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
CC CHEMOKINE EXODUS.
OS RATTUS NORVEGICUS (RAT).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
SCURONATHI; MORIDAE; MURINAE; RATTUS.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-SPRAGUE-DAWLEY;
RA KEINER G.S., MACIEJEWSKI-LENOIR D., LEE E.D., MAKI R.A.;
RN SUBMITTED (FEB-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RP SEQUENCE FROM N.A.
RC STRAIN-ROFFISHER 344; TISSUE-BRAIN;
RA UTKINS-SCHNEITZ U., LOREZ H., KLINERT W.E.F., DA SILVA J.,
RA LESSLAUER W.;
RT "A novel rat CC chemokine, identified by targeted differential
RT display, is upregulated in brain inflammation."
RL J. NEUROIMMUNOL. 0:0-0(1998).
DR EMBL: U90447; G1899246; -.
DR EMBL: AF053312; G3551817; -.
DR PFAM: PF00048; 118; 1.
KW SIGNAL.
SQ SEQUENCE 96 AA; 10875 MW; 3FC09DD8 CRC32;

Query Match
Best Local Similarity 60.0%; Score 60; DB 11; Length 96;
Matches 6; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 73 VCADPQITW 82
:||||: ||
OY 2 ICADPSEWV 11

RESULT 19
ID 073912 PRELIMINARY; PRT; 104 AA.
AC 073912;
DT 01-AUG-1998 (TREMBLREL. 07, CREATED)
DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
DE 01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
DE K60 PROTEIN PRECURSOR.
GN K60.
OS GALLUS GALLUS (CHICKEN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; ARCHOSAURIA; AVES;
OC NEOGNATHAE; GALLIFORMES; PHASIANIDAE; PHASIANINAE; GALLUS.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-MACROPHAGE LIKE;
RA SICK C.;
RL SUBMITTED (AUG-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: Y14971; E1295103; -.
KW SIGNAL.
FT CHAIN 1 20 POTENTIAL.
FT CHAIN 21 104 K60 PROTEIN.
SQ SEQUENCE 104 AA; 11199 MW; 40C2EF8A CRC32;

Query Match
Best Local Similarity 54.5%; Score 60; DB 13; Length 104;
Matches 6; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

Db 75 EYCLDPTAPW 85
:|:|:|:|
OY 1 EICADPSEWV 11

RESULT 20
ID 001768 PRELIMINARY; PRT; 2180 AA.
AC 001768;
DT 01-JUL-1997 (TREMBLREL. 04, CREATED)
DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE SIMILARITY TO EGF-LIKE DOMAINS.
GN T21E3.3.
OS CAENORHABDITIS ELEGANS.

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OC EUKARYOTA; METAZOA; NEMATODA; SECERNENTEA; RHADITIA; RHADITIDA;
OC RHADITINA; RHADITOIDAE; RHADITIDAE; PELODERINAE; CAENORHABDITIS.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-BRISTOL N2;
RX MEDLINE: 94150718.
RA WILSON R., AINSOUCOUGH R., ANDERSON K., BAYNES C., BERS M., BONFIELD J.,
RA BURTON J., CONNELL M., COSEY T., COOPER J., COULSON A., CRAXTON M.,
RA DEAR S., DU Z., DURBIN R., FAVELLO A., FULTON L., GARDNER A., GREEN P.,
RA HAWKINS T., HILLIER L., JIER M., JOHNSTON L., JONES M., KERSHAW J.,
RA KIRSTEN J., LAISTER N., LATREILLE P., LIGHTNING J., LLOYD C.,
RA MCMURRAY A., MORTIMORE B., O'CALLAGHAN M., PARSONS J., PERCY C.,
RA RIKKEN L., ROOPRA A., SAUNDERS D., SHOWNKEEN R., SMALDON N., SMITH A.,
RA SONNHAMMER E., STADEN K., SULSTON J., THIERRY-IBEG J., THOMAS K.,
RA VAUDIN M., VAUGHAN K., WATERSTON R., WATSON A., WEINSTOCK L.,
RA WILKINSON-SPROAT J., WOHLDMAN P.;
RT "2 kb of contiguous nucleotide sequence from chromosome III of C.
RT elegans."
RL NATURE 368:32-38(1994).
RN [2]
RP SEQUENCE FROM N.A.
RC STRAIN-BRISTOL N2;
RA DU Z., LE T.T.;
RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [3]
RP SEQUENCE FROM N.A.
RC STRAIN-BRISTOL N2;
RA WATERSTON R.;
RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: AF003133; G2088683; -.
DR PROSITE, PS01186; EGF_2; 7.
DR PROSITE, PS01209; LDLR_1; 10.
DR PFAM, PF00057; Idl_recept_a; 18.
DR PFAM, PF00058; Idl_recept_b; 8.
KW GYPCOPROTEIN.
SQ SEQUENCE 2180 AA; 241705 MW; 112867B3 CRC32;

Query Match
Best Local Similarity 60.0%; Score 60; DB 5; Length 2180;
Matches 6; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 348 CYDSDSEWVE 357
|||||:|
OY 3 CADPSEWVQ 12

RESULT 21
ID 043646 PRELIMINARY; PRT; 91 AA.
AC 043646;
DT 01-JUN-1998 (TREMBLREL. 06, CREATED)
DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE RANTES PRECURSOR.
GN SCY5.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RA JANG J.S., KIM B.E.;
RL SUBMITTED (JUN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]
RP SEQUENCE FROM N.A.
RA NOMIYAMA H.;
RT "Structure of a region of 181 kb containing five CC chemokine genes."
RL SUBMITTED (AUG-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: AF043341; G2905632; -.
DR EMBL: AF088219; G3719366; -.
DR PROSITE, PS00472; SMALL_CYTOKINES_CC; 1.
KW SIGNAL.
FT CHAIN 1 23 POTENTIAL.
FT CHAIN 24 91 RANTES.
SQ SEQUENCE 91 AA; 9990 MW; CF404FAD CRC32;

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Query Match 64.1%; Score 59; DB 4; Length 91;
Best Local Similarity 41.7%; Pred. No. 1.90e+00;
Matches 5; Conservative 4; Mismatches 3; Indels 0; Gaps 0;

71 QVCANPEKMW 82
QY 1 EICADPSEWVQ 12

RESULT 22
ID 062812 PRELIMINARY; PRT; 97 AA.
AC 062812;
DT 01-AUG-1998 (TREMBLREL. 07, CREATED)
DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
DE INTERLEUKIN-8 (FRAGMENT).
GN IL-8.
OS EQUUS CABALLUS (HORSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
OC PERISSODACTYLIA; EQUIDAE; EQUUS.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-BRONCHIOALVEOLAR TISSUE;
RA FRANCHINI M.;
RL SUBMITTED (APR-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: AF062377; G3126973; -.
FT NON_TER 97
SQ SEQUENCE 97 AA; 10742 MW; 00396FBF CRC32;

Query Match 64.1%; Score 59; DB 6; Length 97;
Best Local Similarity 50.0%; Pred. No. 1.90e+00;
Matches 6; Conservative 2; Mismatches 4; Indels 0; Gaps 0;

75 EVCANPHTKMW 86
QY 1 EICADPSEWVQ 12

RESULT 23
ID P95531 PRELIMINARY; PRT; 448 AA.
AC P95531;
DT 01-MAY-1997 (TREMBLREL. 03, CREATED)
DT 01-MAY-1997 (TREMBLREL. 03, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE LARGE SUBUNIT OF TERMINAL DIOXYGENASE.
GN TDNAL.
OS PSEUDOMONAS PUTIDA.
OC BACTERIA; PROTEOBACTERIA; GAMMA SUBDIVISION; PSEUDOMONAS GROUP;
OC PSEUDOMONAS.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-UCC22;
RX MEDLINE: 97144524.
RA FUKUMORI F.; SAINT C.P.;
RT "Nucleotide sequences and regulational analysis of genes involved in conversion of aniline to catechol in Pseudomonas putida UCC22(PTN1)."
RL J. BACTERIOL. 179:399-408(1997).
DR EMBL: D85415; D1013489; -.
DR PROSITE: PS00570; RING_HYDROXYL_ALPHA; 1.
DR PFAM: PF00848; Ring_hydroxyl_A; 1.
KM DIOXYGENASE.
SQ SEQUENCE 448 AA; 50510 MW; 9F019DF8 CRC32;

Query Match 64.1%; Score 59; DB 2; Length 448;
Best Local Similarity 45.5%; Pred. No. 1.90e+00;
Matches 5; Conservative 3; Mismatches 3; Indels 0; Gaps 0;

385 LCNSPEDEWVD 395
QY 2 ICADPSEWVQ 12

RESULT 24
ID 061093 PRELIMINARY; PRT; 570 AA.
AC 061093;
DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
DT 01-JAN-1998 (TREMBLREL. 05, LAST ANNOTATION UPDATE)
DE CYTOCHROME B-245, BETA POLYPEPTIDE
DE (HEME BINDING MEMBRANE GLYCOPROTEIN GP91PHOX).
GN CYBB.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; ROSENTIA;
OC SCIROGNATHI; MORIDAE; MORINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RA BJORGVINDOTTIR H.; ZHEN L.; DINAUER M.C.;
RL BLOOD 87:0-0(0).
DR EMBL: U43384; G1209752; -.
DR MGD: MGI:88574; CYBB.
KM HOMOEOX; NUCLEAR PROTEIN.
SQ SEQUENCE 570 AA; 65304 MW; 7CED3BAF CRC32;

Query Match 64.1%; Score 59; DB 11; Length 570;
Best Local Similarity 70.0%; Pred. No. 1.90e+00;
Matches 7; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

242 DICADKIEW 251
QY 1 EICADPSEWV 10

RESULT 25
ID Q99664 PRELIMINARY; PRT; 95 AA.
AC Q99664;
DT 01-MAY-1997 (TREMBLREL. 03, CREATED)
DT 01-MAY-1997 (TREMBLREL. 03, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE CHEMOKINE EXODUS.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-PANCREAS;
RX MEDLINE: 97275143.
RA HROMAS R.; GRAY P.W.; CHANTRY D.; GODISKA R.; KRAHWOL M.; FIFE K.;
RA BELL G.I.; TAKEDA J.; ARONICA S.; GORDON M.; COOPER S.; BROXMEYER H.E.;
RA KLEMSZ M.J.;
RT "Cloning and characterization of exodus, a novel beta-chemokine."
RL BLOOD 89:3315-3322(1997).
DR EMBL: U64197; G178717; -.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
DR PFAM: PF00048; 118; 1.
SQ SEQUENCE 95 AA; 10691 MW; 1526B4C0 CRC32;

Query Match 63.0%; Score 58; DB 4; Length 95;
Best Local Similarity 50.0%; Pred. No. 2.93e+00;
Matches 5; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

72 VCANPKOTW 81
QY 2 ICADPSEWV 11

RESULT 26
ID 046178 PRELIMINARY; PRT; 552 AA.
AC 046178;
DT 01-JUN-1998 (TREMBLREL. 06, CREATED)
DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE RADIAL SPOKEHEAD.
OS STRONGYLOCENTROTUS PURPURATUS (PURPLE SEA URCHIN).
OC EUKARYOTA; METAZOA; ECHINODERMATA; ECHINOZOA; ECHINOIDEA; EUECHINOIDEA;

```

OC ECHINACEA; ECHINOIDA; STRONGYLOCENTROTIDAE; STRONGYLOCENTROTUS.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE; 98119758.
RA GINGRAS D., GAGNON C.;
RT "Molecular cloning and characterization of a radial spoke head protein
  of sea urchin sperm axonemes: involvement of the protein in the
  regulation of sperm motility.";
RL MOL. BIOL. CELL 9:513-522(1998).
DR EMBL; U73123; G2905895; -.
SQ SEQUENCE 552 AA; 62723 MW; 898CFCCC CRC32;

Query Match
Best Local Similarity 40.0%; Score 58; DB 5; Length 552;
Pred. No. 2.93e+00;
Matches 4; Conservative 4; Mismatches 2; Indels 0; Gaps 0;

Db 270 VCNEPQPMV 279
QY 2 ICADPSEMV 11

RESULT 27
ID Q90825 PRELIMINARY; PRT; 96 AA.
AC Q90825;
DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE CYTOKINE.
OS GALLUS GALLUS (CHICKEN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; ARCHOSAURIA; AVES;
OC NEOGNATHAE; GALLIFORMES; PHASIANIDAE; PHASIANINAE; GALLUS.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-BONE MARROW;
RA PETRENKO O., ENRIETTO P.J.;
RL SUBMITTED (JUL-1994) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; L34552; G509594; -.
DR PFAM; PF00048; 118; 1.
SQ SEQUENCE 96 AA; 1115 MW; FC581424 CRC32;

Query Match
Best Local Similarity 62.0%; Score 57; DB 13; Length 96;
Pred. No. 4.49e+00;
Matches 6; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

Db 73 FCVDPAGMFG 83
QY 2 ICADPSEMVQ 12

RESULT 28
ID Q69128 PRELIMINARY; PRT; 321 AA.
AC Q69128;
DT 01-AUG-1998 (TREMBLREL. 07, CREATED)
DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
DT 01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
DE PUTATIVE EPIMERASE/DEHYDRATASE WBIG.
OS WBIG.
OS BURKHOLDERIA PSEUDOMALLEI.
OC BACTERIA; PROTEOBACTERIA; BETA SUBDIVISION; BURKHOLDERIA GROUP;
OC BURKHOLDERIA.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-1026B;
RA DESHAUER D., BRETT P.J., WOODS D.E.;
RL SUBMITTED (MAY-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; AF064070; G3135686; -.
SQ SEQUENCE 321 AA; 34852 MW; F0196B82 CRC32;

Query Match
Best Local Similarity 62.0%; Score 57; DB 2; Length 321;
Pred. No. 4.49e+00;
Matches 5; Conservative 3; Mismatches 3; Indels 0; Gaps 0;

Db 37 VCAEGVSEMVH 47

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QY 2 ICADPSEMVQ 12

RESULT 29
ID P91819 PRELIMINARY; PRT; 629 AA.
AC P91819;
DT 01-MAY-1997 (TREMBLREL. 03, CREATED)
DT 01-MAY-1997 (TREMBLREL. 03, LAST SEQUENCE UPDATE)
DT 01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
DE RNA POLYMERASE II LARGE SUBUNIT (FRAGMENT).
OS ZELDISA PUNCTATA.
OC EUKARYOTA; METAZOA; NEMATODA; SECERNENTIA; RHABDITIA; RHABDITIDA;
OC CEPHALOBINA; CEPHALOBIDEA; CEPHALOBIDAE; ZELDISA.
RN [1]
RP SEQUENCE FROM N.A.
RA BALDWIN J.G., GIBLIN-DAVIS R.N., EDDLEMAN C.D., WILLIAMS D.S.,
RA VIDA J.T., THOMAS W.K.;
RL SUBMITTED (JUN-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; U61763; G1778038; -.
FT NON_TER 1
FT NON_TER 629
SQ SEQUENCE 629 AA; 71787 MW; 81055B4F CRC32;

Query Match
Best Local Similarity 41.7%; Score 57; DB 5; Length 629;
Pred. No. 4.49e+00;
Matches 5; Conservative 3; Mismatches 4; Indels 0; Gaps 0;

Db 385 NTCIEDQEMVQ 396
QY 1 EICADPSEMVQ 12

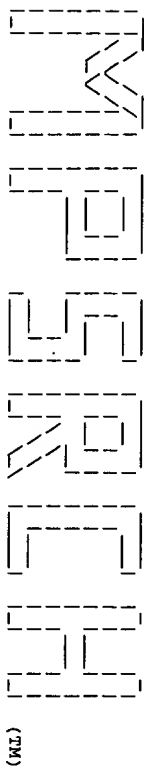
RESULT 30
ID Q14324 PRELIMINARY; PRT; 1142 AA.
AC Q14324;
DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE FAST MYBP-C.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-SKELETAL MUSCLE CELL TYPE;
RX MEDLINE; 93387319.
RA WEBER F.E., VAUGHAN K.T., REINACH F.C., FISCHMAN D.A.;
RT "Complete sequence of human fast-type and slow-type muscle
  myosin-binding-protein C (MyBP-C). Differential expression, conserved
  domain structure and chromosome assignment.";
RL EUR. J. BIOCHEM. 216:661-669(1993).
DR EMBL; X73113; G402647; -.
DR PFAM; PF00041; fn3; 3.
DR PFAM; PF00047; 19; 2.
KW MYOSIN.
SQ SEQUENCE 1142 AA; 128142 MW; F5020136 CRC32;

Query Match
Best Local Similarity 62.0%; Score 57; DB 4; Length 1142;
Pred. No. 4.49e+00;
Matches 7; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

Db 775 EXCLEGSEMV 785
QY 1 EICADPSEMV 11

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Search completed: Thu Apr 1 07:40:03 1999
Job time : 36 secs.



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Run on: Thu Apr 1 07:43:33 1999; MasPar time 2.82 Seconds
Tabular output not generated. 68.937 Million cell updates/sec

Title: >US-08-927-939-13
Description: (1-12) from US08927939.pep
Perfect Score: 97
Sequence: 1 EICADPKQKMIQ 12

Scoring table:
PAM 150
Gap 15

Searched: 131922 seqs, 16180660 residues

Post-processing: Minimum Match 0%
Listing first 100 summaries

Database: a-geneseq32
1:part1 2:part2 3:part3 4:part4 5:part5 6:part6 7:part7
8:part8 9:part9 10:part10 11:part11 12:part12 13:part13
14:part14 15:part15 16:part16 17:part17 18:part18
19:part19 20:part20 21:part21 22:part22 23:part23
24:part24 25:part25 26:part26 27:part27 28:part28
29:part29

Statistics: Mean 18.472; Variance 64.336; scale 0.287

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description	Pred. No.
1	95	97.9	66 24	W13598	Monocyte chemoattract	8.74e-03
2	95	97.9	67 24	W13599	Monocyte chemoattract	8.74e-03
3	95	97.9	68 24	W13597	Monocyte chemoattract	8.74e-03
4	95	97.9	69 14	R87678	des(2-8) MCP-1.	8.74e-03
5	95	97.9	69 24	W13596	Monocyte chemoattract	8.74e-03
6	95	97.9	76 15	R87680	Monocyte chemoattract	8.74e-03
7	95	97.9	76 21	W11131	Mature human monocyte	8.74e-03
8	95	97.9	76 1	R28660	MCF.	8.74e-03
9	95	97.9	76 1	P90292	Peptide from human g1	8.74e-03
10	95	97.9	76 14	R87675	(28-Asp) MCP-1.	8.74e-03
11	95	97.9	76 20	W09374	Monocyte chemoattract	8.74e-03
12	95	97.9	76 10	R53398	Sense MCP-1.	8.74e-03
13	95	97.9	76 14	R87677	(3-Ala) MCP-1.	8.74e-03
14	95	97.9	76 14	R87676	(24-Airg) MCP-1.	8.74e-03
15	95	97.9	77 15	R86859	Mature MCP-1.	8.74e-03
16	95	97.9	99 5	R28653	MCF.	8.74e-03
17	95	97.9	99 2	P95387	Human monocyte chemo-	8.74e-03
18	95	97.9	99 13	R70800	Chemoattractant prote	8.74e-03

19	95	97.9	99 14	R73914	Human monocyte chemo	8.74e-03
20	91	93.8	71 27	W22675	Dro13+ chemokine beta	2.31e-02
21	91	93.8	75 27	W22673	Bac 3 chemokine beta1	2.31e-02
22	91	93.8	77 27	W22672	Bac 2 chemokine beta1	2.31e-02
23	91	93.8	79 27	W22674	Dro11/2 chemokine bet	2.31e-02
24	91	93.8	82 27	W22671	Bac 1 chemokine beta1	2.31e-02
25	91	93.8	82 24	W17665	Stem cell mobilizing	2.31e-02
26	91	93.8	98 17	R93087	Human chemokine beta-	2.31e-02
27	91	93.8	98 28	W30191	Monocyte chemoattract	2.31e-02
28	91	93.8	98 27	W22670	Human chemokine beta1	2.31e-02
29	91	93.8	99 2	R06398	Human MCF precursor.	2.31e-02
30	90	92.8	76 5	R25580	Sequence of bovine p6	2.94e-02
31	90	92.8	99 5	R25581	Human monocyte chemo	2.94e-02
32	88	90.7	67 14	R73915	Chemottractant prote	4.76e-02
33	88	90.7	99 13	R70801	Cytokine encoded by c	4.76e-02
34	88	90.7	109 2	R24353	Amino acid sequence o	6.05e-02
35	87	89.7	82 29	W44721	Human ectactin.	6.05e-02
36	87	89.7	97 21	W10099	Human ectactin.	6.05e-02
37	87	89.7	97 21	W00667	Pancreas expressed ch	6.05e-02
38	87	89.7	97 24	W14990	Human eosinocyte CC t	6.05e-02
39	82	84.5	73 13	R70252	Eotaxin chemoattracta	1.99e-01
40	82	84.5	96 24	W14991	Guinea pig eosinocyte	1.99e-01
41	80	82.5	72 13	R70804	Chemottractant MCP-2	3.20e-01
42	80	82.5	109 29	W42072	Human MC proprotein.	3.20e-01
43	80	82.5	109 26	W26555	Human beta-chemokine	4.05e-01
44	79	81.4	60 24	W17662	Stem cell mobilizing	4.05e-01
45	79	81.4	89 14	R76127	Macrophage inflammato	4.05e-01
46	79	81.4	89 21	W07204	Human cytokine beta-1	4.05e-01
47	79	81.4	89 25	W23643	Human dendritic cell	4.05e-01
48	79	81.4	395 26	W23347	Novel murine CX3C 395	4.05e-01
49	79	81.4	395 28	W34308	Mouse neurotactin.	4.05e-01
50	77	79.4	89 13	R75419	Human SDF-1-alpha.	6.47e-01
51	77	79.4	89 13	R70994	Human SDF-1-alpha.	6.47e-01
52	77	79.4	93 13	R75420	Protein encoded by cd	6.47e-01
53	75	77.3	69 7	R39137	Human SDF-1-beta.	1.03e+00
54	75	77.3	70 24	W17661	LD78 Glu55-Gln. Glu56	1.03e+00
55	75	77.3	73 13	R70251	Stem cell mobilizing	1.03e+00
56	75	77.3	119 22	W07845	Eotaxin chemoattracta	1.03e+00
57	75	77.3	119 17	R85779	Human monocyte chemot	1.03e+00
58	74	76.3	69 21	W01802	Murine macrophage-der	1.30e+00
59	74	76.3	69 1	P90504	CDNA from murine cell	1.30e+00
60	74	76.3	69 24	W16319	Inflammatory cytokine	1.30e+00
61	74	76.3	74 7	R38924	WIP-1alpha.	1.30e+00
62	74	76.3	79 24	W17664	Stem cell mobilizing	1.30e+00
63	74	76.3	92 1	P93590	Deduced sequence of M	1.30e+00
64	74	76.3	92 21	W01804	Murine macrophage-der	1.30e+00
65	74	76.3	134 21	W00668	Pancreas expressed ch	1.30e+00
66	73	75.3	29 4	R20237	NAF(44-72) peptide in	1.64e+00
67	73	75.3	39 22	W04515	Interleukin-8(34-72)	1.64e+00
68	73	75.3	67 7	R38086	Modified human interl	1.64e+00
69	73	75.3	68 7	R38083	Modified human interl	1.64e+00
70	73	75.3	68 7	R38084	Modified human interl	1.64e+00
71	73	75.3	68 7	R38085	Modified human interl	1.64e+00
72	73	75.3	69 7	R38926	LD78 Glu48-Gln.	1.64e+00
73	73	75.3	72 7	R38080	Human Interleukin-8 m	1.64e+00
74	73	75.3	72 11	R70183	Soluble interleukin-8	1.64e+00
75	73	75.3	72 17	R88057	Human Interleukin-8.	1.64e+00
76	73	75.3	72 27	W41519	Neutrophil chemoatcti	1.64e+00
77	73	75.3	72 20	R99812	Chemokine-like protei	1.64e+00
78	73	75.3	72 20	R99804	Chemokine-like protei	1.64e+00
79	73	75.3	72 20	R99806	Chemokine-like protei	1.64e+00
80	73	75.3	72 20	R99803	Chemokine-like protei	1.64e+00
81	73	75.3	72 22	W04516	Interleukin(1-72) pro	1.64e+00
82	73	75.3	72 20	R99805	Chemokine-like protei	1.64e+00
83	73	75.3	72 23	W25714	Chemokine-like protei	1.64e+00
84	73	75.3	72 23	W25707	Mutant human IL-8. Y1	1.64e+00
85	73	75.3	72 23	W25709	Mutant human IL-8. Y1	1.64e+00
86	73	75.3	72 24	W26204	Neutrophil-specific c	1.64e+00
87	73	75.3	72 26	R81838	Sequence of a synthe	1.64e+00
88	73	75.3	72 23	W25708	Mutant human IL-8. S1	1.64e+00
89	73	75.3	72 23	W25713	Mutant human IL-8. F2	1.64e+00
90	73	75.3	72 1	P90913	Sequence of a synthe	1.64e+00
91	73	75.3	72 1	R03166	Human neutrophil chem	1.64e+00

92	73	72	1	R03615	Human neutrophil chem	1.64e+00
93	73	73	20	R99815	Chemokine-like protei	1.64e+00
94	73	73	20	R99814	Interleukin-8.	1.64e+00
95	73	73	20	R99816	Chemokine-like protei	1.64e+00
96	73	73	20	R99817	Chemokine-like protei	1.64e+00
97	73	73	20	R99818	Chemokine-like protei	1.64e+00
98	73	73	20	R99819	Chemokine-like protei	1.64e+00
99	73	73	20	R99820	Chemokine-like protei	1.64e+00
100	73	73	20	R99821	Chemokine-like protei	1.64e+00

ALIGNMENTS

RESULT 1
ID W13598 standard; peptide; 66 AA.
WT: 97-165844/16.
07-NOV-1997 (first entry)
DE Monocyte chemoattractant protein analogue MCP-1 (10-76).
KW Truncated monocyte chemoattractant protein-1; inhibitor;
KW receptor binding; anti-inflammatory; basophil; lymphocyte; allergy;
KW chronic inflammatory disease; arthritis; arteriosclerosis;
KW lung disease.
OS Homo sapiens.
CA2152141-A.
PD 20-DEC-1996.
PF 19-JUN-1995; 152141.
PR 19-JUN-1995; CA-152141.
PA (LEWIS I).
PI Gong J, Lewis I;
DR WPI: 97-165844/16.
PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
PT lacks MCP-1 activity and inhibits receptor binding, useful as
PT anti-inflammatory agent
PS Disclosure: Page 5; 27pp; English.
CC The present sequence represents an analogue, MCP-1 (10-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-9 of MCP-1, acts as an antagonist of MCP-1
CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammation sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 66 AA:

Query Match 97.9%; Score 95; DB 24; Length 66;
Best Local Similarity 91.7%; Pred. No. 8.74e-03;
Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 40 eicadpdkqkwg 51
Oy 1 EICADPKQKWIO 12

RESULT 2
ID W13599 standard; peptide; 67 AA.
WT: 97-165844/16.
07-NOV-1997 (first entry)
DE Monocyte chemoattractant protein analogue MCP-1 (11-76).
KW Truncated monocyte chemoattractant protein-1; inhibitor;
KW receptor binding; anti-inflammatory; basophil; lymphocyte; allergy;
KW chronic inflammatory disease; arthritis; arteriosclerosis;
KW lung disease.
OS Homo sapiens.
CA2152141-A.
PD 20-DEC-1996.
PF 19-JUN-1995; 152141.
PR 19-JUN-1995; CA-152141.
PA (LEWIS I).
PI Gong J, Lewis I;
DR WPI: 97-165844/16.
PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
PT lacks MCP-1 activity and inhibits receptor binding, useful as
PT anti-inflammatory agent
PS Disclosure: Page 5; 27pp; English.
CC The present sequence represents an analogue, MCP-1 (11-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-10 of MCP-1, acts as an antagonist of MCP-1
CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammation sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 67 AA:

Query Match 97.9%; Score 95; DB 24; Length 67;
Best Local Similarity 91.7%; Pred. No. 8.74e-03;
Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 42 eicadpdkqkwg 53
Oy 1 EICADPKQKWIO 12

PI Gong J, Lewis I;
DR WPI: 97-165844/16.
PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
PT lacks MCP-1 activity and inhibits receptor binding, useful as
PT anti-inflammatory agent
PS Disclosure: Page 5; 27pp; English.
CC The present sequence represents an analogue, MCP-1 (11-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-10 of MCP-1, acts as an antagonist of MCP-1
CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammation sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 67 AA:

Query Match 97.9%; Score 95; DB 24; Length 67;
Best Local Similarity 91.7%; Pred. No. 8.74e-03;
Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 41 eicadpdkqkwg 52
Oy 1 EICADPKQKWIO 12

RESULT 3
ID W13597 standard; peptide; 68 AA.
WT: 97-165844/16.
07-NOV-1997 (first entry)
DE Monocyte chemoattractant protein analogue MCP-1 (9-76).
KW Truncated monocyte chemoattractant protein-1; inhibitor;
KW receptor binding; anti-inflammatory; basophil; lymphocyte; allergy;
KW chronic inflammatory disease; arthritis; arteriosclerosis;
KW lung disease.
OS Homo sapiens.
CA2152141-A.
PD 20-DEC-1996.
PF 19-JUN-1995; 152141.
PR 19-JUN-1995; CA-152141.
PA (LEWIS I).
PI Gong J, Lewis I;
DR WPI: 97-165844/16.
PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
PT lacks MCP-1 activity and inhibits receptor binding, useful as
PT anti-inflammatory agent
PS Claim 7; Page 5; 27pp; English.
CC The present sequence represents an analogue, MCP-1 (9-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-8 of MCP-1, acts as an antagonist of MCP-1
CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammation sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 68 AA:

Query Match 97.9%; Score 95; DB 24; Length 68;
Best Local Similarity 91.7%; Pred. No. 8.74e-03;
Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 42 eicadpdkqkwg 53
Oy 1 EICADPKQKWIO 12

RESULT 4
ID R87678 standard; protein; 69 AA.
AC R87678;
DT 21-FEB-1996 (first entry)
DE des(2-8) MCP-1.
KW monocyte chemoattractant protein; MCP-1; mutant; restenosis;
KM angioplasty.
OS Homo sapiens.
FH key location/Qualifiers
FT modified_site 2.3
FT /note= "amino acids 2-8 of the native protein have
FT been deleted between these residues"
FT disulfide_bond 4...29
FT disulfide_bond 5...45
PN MO9513295-A1.
PD 18-MAY-1995.
PF 07-NOV-1994; U12874.
PR 12-NOV-1993; US-152301.
PA (DAND) DANA FARBER CANCER INST INC.
PI Rollins B, Zhang YJ;
DR WPI; 95-215051/28.
PT Human monocyte chemo-attractant protein-1 (MCP-1) deriva. - are
PT capable of inhibiting the monocyte chemo-attractant activity of
PS endogenous MCP-1 and can be used to treat restenosis
PS Claim 4; Page 11; 22pp; English.
CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
CC that they inhibit the monocyte chemoattractant activity of endogenous
CC MCP-1, provided that the derivative has not been modified by the
CC substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
CC are: (1) substitution of 28-Tyr by aspartate; (2) substitution of 24 Arg
CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
CC acids 2-8. The present sequence is a specifically claimed human MCP-1
CC derivative based on the parent protein disclosed in Rollins, Molecular
CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
CC The peptides can be used to prevent restenosis, e.g. in patients
CC undergoing coronary artery angioplasty.
SQ Sequence 69 AA;
Query Match 97.9%; Score 95; DB 14; Length 69;
Best Local Similarity 91.7%; Pred. No. 8.74e-03;
Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
Db 43 elcadpkkqkwq 54
QY 1 ETCADPKKQKWQ 12

RESULT 5
ID W13596 standard; peptide; 69 AA.
AC W13596;
DT 07-NOV-1997 (first entry)
DE Monocyte chemoattractant protein analogue MCP-1 (8-76).
KW Truncated monocyte chemoattractant protein-1; inhibitor;
KW receptor binding; anti inflammatory; basophil; lymphocyte; allergy;
KW chronic inflammatory disease; arthritis; arteriosclerosis;
KW lung disease.
OS Homo sapiens.
PN CA2152141-A.
PD 20-DEC-1996.
PF 19-JUN-1995; 152141.
PR 19-JUN-1995; CA-152141.
PA (LEWIS) LEWIS I.
PI Gong J, Lewis I;
DR WPI; 97-165844/16.
PT N-terminally truncated monocyte chemo-attractant protein-1 (MCP-1) -
PT lacks MCP-1 activity and inhibits receptor binding, useful as
PT anti-inflammatory agent
PS Claim 5; Page 5; 27pp; English.
CC The present sequence represents an analogue, MCP-1 (8-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-7 of MCP-1, acts as an antagonist of MCP-1

CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammatory sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC providing 50% inhibition of binding at a 25:1 ratio or less, compared
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 69 AA;
Query Match 97.9%; Score 95; DB 24; Length 69;
Best Local Similarity 91.7%; Pred. No. 8.74e-03;
Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
Db 43 elcadpkkqkwq 54
QY 1 ETCADPKKQKWQ 12

RESULT 6
ID R87680 standard; protein; 76 AA.
AC R87680;
DT 05-MAR-1996 (first entry)
DE Monocyte chemotactic activating factor for use as wound remedy.
KW monocyte chemotactic activating factor; MCAF; wound remedy.
OS Homo sapiens.
PN MO9507710-A1.
PD 23-MAR-1995.
PF 13-SEP-1994; J01512.
PR 13-SEP-1993; JP-227385.
PA (TORA) TORAY IND INC.
PI Matsushima K, Naruto M;
DR WPI; 95-131181/17.
PT Wound treatment using monocyte chemotactic factor - has potent
PT therapeutic effect on skin wounds and ulcers
PS Disclosure; Page 12; 22pp; Japanese.
CC The invention relates to a new remedy for curing wounds which, instead
CC of comprising a growth factor, comprises a monocyte chemotactic
CC activating factor (MCAF) or its variants or derivatives. The factor has
CC potent effect on skin wounds and ulcers. The present sequence is human
CC MCAF, the activity of which is exemplified as the new remedy.
SQ Sequence 76 AA;
Query Match 97.9%; Score 95; DB 15; Length 76;
Best Local Similarity 91.7%; Pred. No. 8.74e-03;
Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
Db 50 elcadpkkqkwq 61
QY 1 ETCADPKKQKWQ 12

RESULT 7
ID W11131 standard; protein; 76 AA.
AC W11131;
DT 10-JUN-1997 (first entry)
DE Mature human monocyte chemoattractant protein-1 (MCP-1).
KW MCP-1; mature chemoattractant protein-1; cytokine; interleukin-8;
KW IL-8; neutrophil activating peptide; labelling; imaging; targeting;
KW radionuclide; infection; inflammation; neoplasm; atheromatous lesion;
KW restenosis.
OS Homo sapiens.
FH key location/Qualifiers
FT misc_difference 1 /note= "X- any amino acid"
FT US5605671-A.
PN 25-FEB-1997.
PD 05-OCT-1992; 956862.
PF 05-OCT-1992; US-956863.
PR 05-OCT-1992; US-956862.
PR 29-APR-1994; US-235659.

PA (MICH) MALLINCKRODT MEDICAL INC.
 PA (UNMI) UNIV MICHIGAN.
 PI Kunkel SL, Lyle LR, Strieter RM;
 DR WPI: 97-153541/14.
 PT Radio:labelling neutrophil-activating peptide(s) - for imaging
 PT targeted delivery of radioactive agent
 PS Example 10: Column 19-20, 15pp; English.
 CC Will31 represents mature human monocyte chemoattractant protein-1
 CC (MCP-1). MCP-1 was radiolabeled and used in a method for
 CC imaging a target site in vivo in an animal. Labeled MCP-1 was allowed
 CC to accumulate at a target site (having MCP-1 receptors) in the animal
 CC and detected so as to image the target site. Any Cys-Cys or Cys-Xaa-Cys
 CC chemokine carrying either iodine-123 or iodine-131 can be used in the
 CC method. Especially preferred is neutrophil activating peptide-2 (NAP-2)
 CC technetium-99m, indium-111, copper-62, rhodium-186 or rhodium-188.
 CC The method can be used for imaging a site of infection, inflammation,
 CC neoplasm, atheromatous lesion or restenosis.
 SQ Sequence 76 AA;

Query Match 97.9%; Score 95; DB 21; Length 76;
 Best Local Similarity 91.7%; Pred. No. 8,74e-03;
 Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 50 eicadpkkqkwg 61
 |||||||||:|
 QY 1 EICADPKQKWIQ 12

RESULT 8
 ID R28660 standard; Protein; 76 AA.
 AC R28660;
 DT 24-MAR-1993 (first entry)
 DE MCF.
 KW Plasmid; monocyte chemotactic factor; MCF; translation;
 KM termination; terminator; initiation; ribosome binding site;
 KW RBS; promoter; tryptophan; repressor.
 OS Synthetic.
 PN WO9219737-A.
 PD 12-NOV-1992.
 PF 27-APR-1992; J00550.
 PR 09-MAY-1991; JP-135950.
 PA (DAIN) DAINIPPON PHARM CO LTD.
 PI Fukui T, Matsuo N, Yamada M, Yamagishi J;
 DR WPI: 92-396864/46.
 DT N-PSB; Q30745-46.
 PT Prod. of polypeptide(s) having monocyte chemotactic activity -
 PT using expression plasmids with E. coli elements and specific
 PT E.coli strains
 PS Claim 1: Page 48 + Page 36; 56pp; English.
 CC An expression plasmid, pHM483, for producing MCF(76) consisting
 CC of 76 amino acids was constructed. The prod. can be used for e.g.
 CC treating bacterial infectious diseases..
 SQ Sequence 76 AA;

Query Match 97.9%; Score 95; DB 5; Length 76;
 Best Local Similarity 91.7%; Pred. No. 8,74e-03;
 Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 50 eicadpkkqkwg 61
 |||||||||:|
 QY 1 EICADPKQKWIQ 12

RESULT 9
 ID P90292 standard; peptide; 76 AA.
 AC P90292;
 DT 17-JAN-1990 (first entry)
 DE Peptide from human glioma cell line U-105MG.
 KW Glioma; leucocyte; chemotaxis; neoplasms.
 OS Human.
 FH Key
 FT modified_site 1 Location/Qualifiers

FT /label- OTHER
 FT /note= "pyroglutamic acid"
 PN US7304234-A.
 PD 20-JUL-1989.
 PF 31-JAN-1989; 030423.
 PR 31-JAN-1989; US-304234.
 PA (USSH) US Dept. of Health and Human.
 PI Yoshimura T; Robinson E; Appella E; Leonard E.
 DR WPI: 89-263501/36.
 PT New peptide with specific chemotactic activity for monocytes - isolated
 PT from glioma or leucocyte cells, useful for treating infections and
 PT neoplasms.
 PS Disclosure, page 3; 46pp; English.
 CC Peptide is derived from glioma cell line U-105MG (ATCC CRL9392) or from
 CC leukocytes and has mol. wt. 8400. Used to treat infections and neoplasms.
 SQ Sequence 76 AA;

Query Match 97.9%; Score 95; DB 1; Length 76;
 Best Local Similarity 91.7%; Pred. No. 8,74e-03;
 Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 50 eicadpkkqkwg 61
 |||||||||:|
 QY 1 EICADPKQKWIQ 12

RESULT 10
 ID R87675 standard; Protein; 76 AA.
 AC R87675;
 DT 21-FEB-1996 (first entry)
 DE (28-ASP) MCP-1.
 KW monocyte chemoattractant protein; MCP-1; mutant; restenosis;
 KW angioplasty.
 OS Homo sapiens.
 FH Key
 FT modified_site 28 Location/Qualifiers
 FT /note= "Tyr in the native sequence is replaced by asp"
 FT disulfide_bond 11..36
 FT disulfide_bond 12..52
 FT WO9513295-A1.
 PD 18-MAY-1995.
 PF 07-NOV-1994; U12874.
 PR 12-NOV-1993; US-152301.
 PA (DAND) DANA FARBER CANCER INST INC.
 PI Rollins B, Zhang YJ;
 DR WPI: 95-215051/28.
 PT Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are
 PT capable of inhibiting the monocyte chemo-attractant activity of
 PT endogenous MCP-1 and can be used to treat restenosis
 PS Claim 3: Page 11; 22pp; English.
 CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
 CC that they inhibit the monocyte chemoattractant activity of endogenous
 CC MCP-1, provided that the derivative has not been modified by the
 CC substitution of 28-Tyr by Ieu and/or 30-Arg by Val. Preferred mutations
 CC are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg
 CC by Phe; (3) substitution of 3-asp by Ala; and/or (4) deletion of amino
 CC acids 2-8. The present sequence is a specifically claimed human MCP-1
 CC derivative based on the parent protein disclosed in Rollins, Molecular
 CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
 CC The peptides can be used to prevent restenosis, e.g. in patients
 CC undergoing coronary artery angioplasty.
 SQ Sequence 76 AA;

Query Match 97.9%; Score 95; DB 14; Length 76;
 Best Local Similarity 91.7%; Pred. No. 8,74e-03;
 Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 50 eicadpkkqkwg 61
 |||||||||:|
 QY 1 EICADPKQKWIQ 12

RESULT 11

ID W09374 standard; Protein: 76 AA.
AC W09374.
DT 21-MAR-1997 (first entry)
DE Monocyte chemotactic protein 1.
KW Human; monocyte chemoattractant protein; antisense; inhibition;
KW mononuclear cell; lymphocyte; macrophage; smooth muscle cell;
KW vascular restenosis.
OS Homo sapiens.
FH Key
FT misc_difference 1 Location/Qualifiers
FT misc_difference 51 /note= "encoded by codon CAG"
FT misc_difference 65 /note= "encoded by codon AUG"
FT misc_difference 65 /note= "encoded by codon CAC"
PN US5571713-A.
PD 05-NOV-1996.
PF 22-OCT-1992; 965678.
PR 22-OCT-1992; US-965678.
PR 27-MAY-1994; US-250958.
PA (UNMCI) UNIV MICHIGAN.
PI Kunkel SL, Lyle LR, Strleter RM;
DR N-PSDB: T48092.
PT Anti-sense Monocyte Chemotactic Protein-1 oligo:nucleotide(s) -
PT useful for therapy or diagnosis of restenosis, etc.
PS Disclosure: Column 13-14; 16pp; English.
CC This is the amino acid sequence of the human monocyte chemoattractant
stimulator of monocyte chemotaxis and is produced by injured vascular
smooth cells thus attracting monocytes and macrophages which infiltrate
the injured area and release growth factor. This causes proliferation of
the vascular smooth cells resulting in restenosis. The gene sequence can
be used to generate antisense sequences e.g. T48093-7, which can be used
to inhibit in vitro MCP-1 prodn. by mononuclear cells e.g. lymphocytes or
macrophages, or smooth muscle cells, esp. in order to prevent vascular
restenosis. 76 AA;
SQ Sequence

Query Match 97.9%; Score 95; DB 20; Length 76;
Best Local Similarity 91.7%; Pred. No. 8.74e-03;
Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 50 elcaddpkqkwg 61
|||||
1 EICADPKQKMW 12

RESULT 12
ID R53398 standard; Protein: 76 AA.
AC R53398.
DT 15-DEC-1994 (first entry)
DE Sense MCP-1.
KW Antisense; RNA; DNA; monocyte chemotactic protein-1; MCP-1;
KW radionuclide; vascular restenosis; alpha; beta; emitting isotope;
KW diagnosis; monocytes; vascular injury.
OS Mammalian.
FH Key
FT misc_difference 1 Location/Qualifiers
FT misc_difference 1 /note= "unspecified amino acid"
PN W09409128-A.
PD 28-APR-1994.
PF 20-OCT-1993; U10074.
PR 22-OCT-1992; US-965678.
PA (MLCM) MALLINCKRODT MEDICAL INC.
PI Lyle LR;
DR WPI; 94-151314/18.
PT Anti-sense monocyte chemotactic protein-1 oligo:nucleotide(s) and
peptide(s) - is used for inhibiting, treating or imaging areas of
vascular restenosis or potential restenosis
PS Disclosure: Page 5; 42pp; English.
CC The sequences given in R53398-99 represent sense and antisense
monocyte chemotactic protein-1 (MCP-1) respectively. These

CC oligonucleotides may be labelled with a radionuclide and use
CC therapeutically for the treatment of vascular restenosis.
CC Radiolabelled antisense MCP-1 compounds may be constructed using high
CC energy alpha or beta emitting isotopes rather than the gamma
CC emitters cutmarrily used for diagnostic purposes. Antisense MCP-1
CC compounds inactivate MCP-1 or inhibit production of MCP-1 so that
CC monocytes are not attracted to the area of vascular injury and
CC proliferation of vascular cells is inhibited.
SQ Sequence 76 AA;

Query Match 97.9%; Score 95; DB 10; Length 76;
Best Local Similarity 91.7%; Pred. No. 8.74e-03;
Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 50 elcaddpkqkwg 61
|||||
1 EICADPKQKMW 12

RESULT 13
ID R87677 standard; protein: 76 AA.
AC R87677.
DT 21-FEB-1996 (first entry)
DE (3-ALA) MCP-1.
KW Monocyte chemoattractant protein; MCP-1; mutant; restenosis;
KW angioplasty.
OS Homo sapiens.
FH Key
FT modified_site 3 Location/Qualifiers
FT disulfide_bond 3 /note= "Asp in the native sequence is replaced by Ala"
FT disulfide_bond 11..36
FT disulfide_bond 12..52
PN W09513295-A1.
PD 18-MAY-1995.
PF 07-NOV-1994; U12874.
PR 12-NOV-1993; US-152301.
PA (DAND) DANA FARBER CANCER INST INC.
PI Rollins B, Zhang YJ;
DR WPI; 95-215051/28.
PT Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are
PT capable of inhibiting the monocyte chemo-attractant activity of
endogenous MCP-1 and can be used to treat restenosis
PS Claim 6; Page 11; 22pp; English.
CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
CC that they inhibit the monocyte chemoattractant activity of endogenous
MCP-1, provided that the derivative has not been modified by the
substitution of 28-tyr by leu and/or 30-Arg by Val. Preferred mutations
are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg
by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
acids 2-8. The present sequence is a specifically claimed human MCP-1
CC derivative based on the parent protein disclosed in Rollins, Molecular
and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
CC The peptides can be used to prevent restenosis, e.g. in patients
undergoing coronary artery angioplasty.
SQ Sequence 76 AA;

Query Match 97.9%; Score 95; DB 14; Length 76;
Best Local Similarity 91.7%; Pred. No. 8.74e-03;
Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 50 elcaddpkqkwg 61
|||||
1 EICADPKQKMW 12

RESULT 14
ID R87676 standard; protein: 76 AA.
AC R87676.
DT 21-FEB-1996 (first entry)
DE (24-Arg) MCP-1.
KW monocyte chemoattractant protein; MCP-1; mutant; restenosis;
KW angioplasty.
OS Homo sapiens.

FH Key Location/Qualifiers
 modified_site 24
 FT /note= "Arg in the native sequence is replaced by Phe"
 FT disulfide bond 11..36
 FT disulfide bond 12..52
 PN WO9513295-A1.
 PD 18-MAY-1995.
 PF 07-NOV-1994; U12874.
 PR 12-NOV-1993; US-152301.
 PA (DANA) DANA FARBER CANCER INST INC.
 PI Rollins B, Zhang YJ;
 DR WPI: 95-215051/28.
 PT Human monocyte chemo-attractant protein-1 (MCP-1) derive. - are
 PT capable of inhibiting the monocyte chemo-attractant activity of
 PT endogenous MCP-1 and can be used to treat restenosis
 PS Claim 5; Page 11; 22pp; English.
 CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
 CC that they inhibit the monocyte chemoattractant activity of endogenous
 CC MCP-1, provided that the derivative has not been modified by the
 CC substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
 CC are: (1) substitution of 28-Tyr by aspartate; (2) substitution of 24 Arg
 CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
 CC acids 2-8. The present sequence is a specifically claimed human MCP-1
 CC derivative based on the parent protein disclosed in Rollins, Molecular
 CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
 CC The peptides can be used to prevent restenosis, e.g. in patients
 CC undergoing coronary artery angioplasty.
 SQ Sequence 76 AA;
 Query Match 97.9%; Score 95; DB 14; Length 76;
 Best Local Similarity 91.7%; Pred. No. 8.74e-03;
 Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
 Db 50 eicadpdkxkwg 61
 1 EICADPKOKWIO 12
 Oy 1 EICADPKOKWIO 12
 RESULT 15
 ID R86859 standard; Protein; 77 AA.
 AC R86859;
 DT 20-MAR-1996 (first entry)
 DE Mature MCP-1.
 KW Antisense: monocyte chemotactic protein-1; MCP-1;
 KW "C-C" family; chemotactant cytokine; chemokine; stimulation;
 KW monocyte; chemotaxis; vascular smooth muscle cell; macrophage;
 KW proliferation; restenosis; balloon angioplasty.
 OS Homo sapiens.
 PN WO9519167-A1.
 PD 20-JUL-1995.
 PF 13-JAN-1995; U00605.
 PR 14-JAN-1994; US-182917.
 PA (MLCW) MALLINCKRODT MEDICAL INC.
 PI Lyle LR, Thomas-Miller B;
 DR WPI: 95-263703/34.
 DR N-PSDB: T03528.
 PT New antisense oligo:nucleotide(s) and peptide(s) for inhibiting
 PT restenosis - are directed against C-C family cytokine(s) such as
 PT monocyte chemotactic protein, opt. radio:labelled for therapy or
 PT imaging
 PS Disclosure; Page 5; 50pp; English.
 CC This sequence represents the mature form of monocyte chemotactic
 CC protein-1 (MCP-1). MCP-1 is a member of the "C-C" family of
 CC chemotactant cytokines or chemokines. It is a potent stimulator
 CC of monocyte chemotaxis and has an extremely high degree of specificity
 CC for this cell type. MCP-1 is produced by injured vascular smooth muscle
 CC cells and attracts the monocytes and macrophages which infiltrate the
 CC area, releasing growth factors and resulting in proliferation of vascular
 CC smooth muscle and restenosis. Nucleic acid molecules which are antisense
 CC to the MCP-1 mRNA may be used to inhibit translation of MCP-1 and so may
 CC be useful for inhibiting vascular restenosis, partic. following balloon
 CC angioplasty or a related process. The molecule may be radiolabelled to
 CC increase its therapeutic effect or for imaging areas of potential

CC restenosis.
 SQ Sequence 77 AA;
 Query Match 97.9%; Score 95; DB 15; Length 77;
 Best Local Similarity 91.7%; Pred. No. 8.74e-03;
 Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
 Db 51 eicadpdkxkwg 62
 1 EICADPKOKWIO 12
 Oy 1 EICADPKOKWIO 12
 RESULT 16
 ID R28663 standard; Protein; 99 AA.
 AC R28663;
 DT 24-MAR-1993 (first entry)
 DE MCF.
 KW plasmid; monocyte chemotactic factor; MCF; translation;
 KW termination; terminator; initiation; ribosome binding site;
 KW RBS; promoter; cryptophan; repressor.
 OS Synthetic.
 FH Key Location/Qualifiers
 FT peptide 1..23
 FT /label= sig-peptide
 FT protein 24..99
 FT /label= mat_protein
 PN WO9219737-A.
 PD 12-NOV-1992.
 PR 27-APR-1992; J00550.
 PR 09-MAY-1991; JP-135950.
 PA (DAIN) DAINIPPON PHARM CO LTD.
 PI Fukui I, Matsuo N, Yamada M, Yamagishi J;
 DR WPI: 92-398864/48.
 DR N-PSDB: Q30748.
 PT Prodn. of polypeptide(s) having monocyte chemotactic activity -
 PT using expression plasmids with E. coli elements and specific
 PT E. coli strains
 PS Disclosure; Page 43-44; 56pp; English.
 CC An expression plasmid, pHC076 for producing MCF(76) consisting
 CC of 76 amino acids was constructed. DNA encoding MCF(76) was
 CC prep. using a recombinant plasmid pHC076.
 SQ Sequence 99 AA;
 Query Match 97.9%; Score 95; DB 5; Length 99;
 Best Local Similarity 91.7%; Pred. No. 8.74e-03;
 Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
 Db 73 eicadpdkxkwg 84
 1 EICADPKOKWIO 12
 Oy 1 EICADPKOKWIO 12
 RESULT 17
 ID P95387 standard; protein; 99 AA.
 AC P95387;
 DT 25-JUL-1989 (first entry)
 DE Human monocyte chemo-attractant peptide-1.
 KW Human monocyte chemo-attractant peptide; inflammatory disease; neoplasms.
 OS Homo sapiens.
 FH Key Location/Qualifiers
 FT protein 24..99
 FT /product=MCP-1
 PN U57330446-A.
 PD 25-JUL-1989;
 PR 30-MAR-1989; 330446.
 PR 30-MAR-1989; US-330446.
 PA (USSH) US Dept. Health and Human.
 PI Yoshimura T, Rodinson EA, Appella E, Leonard EJ;
 DR WPI: 89-300683/41.
 DR N-PSDB: N91337.
 PT Human derived monocyte chemo-attractant peptide prods. - obtd. from human
 PT glioma cell line U-105MG or peripheral blood mononuclear leukocytes.
 PS Disclosure; fig 2; 66pp; English.

CC This is a human-derived monocyte chemo-attractant peptide (MCP-1) sequence
CC MCP-1 exhibits optimal chemotactic activity at a concn. of 1nM and has a
CC mol. mass of c.a. 8,400 D. MCP-1 can be used for treating infection eg
CC inflammatory disease, or for the control of neoplasms by accumulation of
CC monocytes at the site of the infection. The corresp. DNA is obtd. by
CC chemical synthesis, by screening reverse transcripts of mRNA from
CC purified blood leukocytes or cell cultures of eg U-373 MG or KMG-5.
SQ Sequence 99 AA.

Query Match 97.9%; Score 95; DB 2; Length 99;
Best Local Similarity 91.7%; Pred. No. 8.74e-03;

Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 73 eicadpkqkvwg 84
|||
QY 1 EICADPKQKRWIO 12

RESULT 18
ID R70800 standard; Protein; 99 AA.
AC R70800;
DE 29-AUG-1995 (first entry)
DE Chemoattractant protein MCP-1.
KW MCP-1; chemoattractant; heparanase; heparin; heparan sulfate;
KW arthritis; restenosis; cancer; wound healing.
OS Homo sapiens.
PN W09504158-A.
PD 09-FEB-1995.
PE 26-JUL-1994; U08207.
PR 29-JUL-1993; US-099866.
PR 13-OCT-1993; US-136117.
PA (OPDO) UPJOHN CO.
PI Hoogwerf AJ, Ledbetter SR.
DR WPI: 95-082239/11.
DR N-PSDB: 085370.
PT Screening for cGds. with anti-heparanase activity - by detecting
PT inhibition of heparin or heparan sulphate degradation.
PT potentially useful for treating arthritis, restenosis, cancer.
PS Claim 13; Page 49; 60pp; English.
CC Purified heparanases, prepared under reducing conditions and
CC activated with transglutaminase, are given in R70786-804. Most
CC are prepared by reverse transcription of mRNA from activated human
CC leukocytes, then cloning of the cDNA into pVL1392 baculovirus
CC vector, and expression in Sf9 cells in the presence of reduced
CC glutathione and dithiothreitol.
SQ Sequence 99 AA;

Query Match 97.9%; Score 95; DB 13; Length 99;
Best Local Similarity 91.7%; Pred. No. 8.74e-03;

Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 73 eicadpkqkvwg 84
|||
QY 1 EICADPKQKRWIO 12

RESULT 19
ID R73914 standard; protein; 99 AA.
AC R73914;
DE 05-DEC-1995 (first entry)
DE Human monocyte chemoattractant factor hMCP-1.
AW Human monocyte chemoattractant factor; hMCP-1; chemokine; vaccine;
KW meningitis related homologous antigenic sequence; MRHAS; RV-1;
KW immunosay; diagnosis; treatment; prophylactic; bacterial;
KW viral.
OS Homo sapiens.
PN W09508232-A.
PD 06-APR-1995.
PE 28-SEP-1994; CA0516.
PR 28-SEP-1993; US-127499.
PA (SHAR/) SHARMA L R.
PA (VALS/) VAN ALSTYNE D.
PI Sharma LR, Van Alstyne D;

DR WPI: 95-147431/19.
PT New peptide(s) and corresp. antibodies for the treatment of
PT meningitis - the peptide(s) corresp. to homologous antigenic
PT sites on bacterial and viral agents and on chemokine(s), used for
PT detecting and preventing meningitis
PS Claim 47; Fig 8/10; 98pp; English.
CC R73914 is the chemokine Human monocyte chemoattractant factor hMCP-1.
CC It contains the meningitis related antigenic sequences (MRHAS) claimed
CC in R73895 and R73907, which are recognised by a monoclonal antibody
CC from the hybridoma Rubella virus (RV)-1. The claimed MRHAS peptides
CC may be used in immunoassays to diagnose the presence of bacterial
CC and/or viral meningitis agents in a sample, or in prophylactic and
CC therapeutic meningitis treatments. The peptides may also be used as
CC vaccines against meningitis.
CC NB: Identified by matching corresponding MRHAS peptides.
SQ Sequence 99 AA;

Query Match 97.9%; Score 95; DB 14; Length 99;
Best Local Similarity 91.7%; Pred. No. 8.74e-03;

Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 73 eicadpkqkvwg 84
|||
QY 1 EICADPKQKRWIO 12

RESULT 20
ID W22675 standard; Protein; 71 AA.
AC W22675;
DE 19-MAR-1998 (first entry)
DE Drol3+ chemokine beta10 or monocyte chemotactic protein 4 variant.
KW Human; chemokine beta10; CK beta10; treatment; antagonist;
KW solid tumour; infection; autoimmune disease; asthma; antibody;
KW fibrotic disease; psoriasis; neurodegenerative disease;
KW wound healing; haematopoiesis regulation; gene therapy;
KW chromosome identification; monocyte chemotactic protein 4;
KW leukemia; MCP-4; Drol3+ variant.
OS Homo sapiens.
PN W09731098-A1.
PD 28-AUG-1997.
PE 23-FEB-1996; U02598.
PR 23-FEB-1996; WO-U02598.
PA (HUMA-) HUMAN GENOME SCI INC.
PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
PI Parmelee D, White J;
DR WPI: 97-435153/40.
PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
PT protein 4 - useful to treat tumours, autoimmune disease, infection,
PT asthma and fibrosis
PS Example 11; Fig 5; 83pp; English.
CC The present sequence is human chemokine beta10 (CK beta10) or
CC monocyte chemotactic protein 4 (MCP-4) Drol3+ variant, which can
CC be used to treat patients deficient in CK beta10, while a CK beta10
CC antagonist can be used to reduce excessive levels of CK beta10. CK
CC beta10 can be used to treat leukaemia, solid tumours, chronic or
CC opportunistic infections, autoimmune diseases, asthma, fibrotic
CC diseases, psoriasis and neurodegenerative diseases. It also
CC promotes wound healing, regulates haematopoiesis and generates
CC antibodies. Labeled CK beta10 can be used to identify its cognate
CC receptor, while cells expressing the receptor can be used to screen
CC compounds for (ant)agonist activity. The antagonist can be used to
CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
CC infectious diseases, allergies, prostaglandin dependent fever and
CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
CC syndrome, lung inflammation and atherosclerosis. CK beta10 cDNA can
CC be used to isolate genes encoding similar peptides, in gene therapy
CC and for chromosome identification.
SQ Sequence 71 AA;

Query Match 93.8%; Score 91; DB 27; Length 71;
Best Local Similarity 83.3%; Pred. No. 2.31e-02;

Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 45 eicadpkexkwyg 56
 |||||||:|:|
 Qy 1 EICADPKOKWIO 12

RESULT 21

ID W22673 standard; Protein: 75 AA.

AC W22673; 19-MAR-1998 (first entry)
 DE Bac 3 chemokine beta10 or monocyte chemotactic protein 4 variant.
 KM Human; chemokine beta10; CK beta10; treatment; antagonist;
 KM solid tumour; infection; autoimmune disease; asthma; antibody;
 KM fibrotic disease; psoriasis; neurodegenerative disease;
 KM wound healing; haematopoiesis regulation; gene therapy;
 KM chromosome identification; monocyte chemotactic protein 4;
 KM leukaemia; MCP-4; Bac 3 variant.
 OS Homo sapiens.
 PN MO9731098-A1.
 PD 28-AUG-1997.
 PF 23-FEB-1996; WO-002598.
 PR 23-FEB-1996; WO-002598.
 PA (HUMA-) HUMAN GENOME SCI INC.
 PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
 PI Parmelee D, White J;
 DR WPI: 97-435153/40.
 PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
 PT protein 4 - useful to treat tumours, autoimmune disease, infection,
 PT asthma and fibrosis
 PS Example 11; Fig 5; 83pp; English.
 CC The present sequence is human chemokine beta10 (CK beta10) or
 CC monocyte chemotactic protein 4 (MCP-4) Bac 3 variant, which can be
 CC used to treat patients deficient in CK beta10, while a CK beta10
 CC antagonist can be used to reduce excessive levels of CK beta10. CK
 CC beta10 can be used to treat leukaemia, solid tumours, chronic or
 CC opportunistic infections, autoimmune diseases, asthma, fibrotic
 CC diseases, psoriasis and neurodegenerative diseases. It also
 CC promotes wound healing, regulates haematopoiesis and generates
 CC antibodies. Labelled CK beta10 can be used to identify its cognate
 CC receptor, while cells expressing the receptor can be used to screen
 CC compounds for (ant)agonist activity. The antagonist can be used to
 CC treat rheumatoid arthritis, allergies, prostaglandin dependent fever and
 CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
 CC syndrome, lung inflammation and atherosclerosis. CK beta10 cDNA can
 CC be used to isolate genes encoding similar peptides, in gene therapy
 CC and for chromosome identification.
 SQ Sequence 75 AA;

Query Match 93.8%; Score 91; DB 27; Length 75;
 Best Local Similarity 83.3%; Pred. No. 2,31e-02;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 49 eicadpkexkwyg 60
 |||||||:|:|
 Qy 1 EICADPKOKWIO 12

RESULT 22

ID W22672 standard; Protein: 77 AA.

AC W22672; 19-MAR-1998 (first entry)
 DE Bac 2 chemokine beta10 or monocyte chemotactic protein 4 variant.
 KM Human; chemokine beta10; CK beta10; treatment; antagonist;
 KM solid tumour; infection; autoimmune disease; asthma; antibody;
 KM fibrotic disease; psoriasis; neurodegenerative disease;
 KM wound healing; haematopoiesis regulation; gene therapy;
 KM chromosome identification; monocyte chemotactic protein 4;
 KM leukaemia; MCP-4; Bac 2 variant.
 OS Homo sapiens.
 PN MO9731098-A1.
 PD 28-AUG-1997.
 PF 23-FEB-1996; WO-002598.
 PR 23-FEB-1996; WO-002598.

PA (HUMA-) HUMAN GENOME SCI INC.
 PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
 PI Parmelee D, White J;
 DR WPI: 97-435153/40.

PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
 PT protein 4 - useful to treat tumours, autoimmune disease, infection,
 PT asthma and fibrosis
 PS Example 11; Fig 5; 83pp; English.
 CC The present sequence is human chemokine beta10 (CK beta10) or
 CC monocyte chemotactic protein 4 (MCP-4) Bac 2 variant, which can be
 CC used to treat patients deficient in CK beta10, while a CK beta10
 CC antagonist can be used to reduce excessive levels of CK beta10. CK
 CC beta10 can be used to treat leukaemia, solid tumours, chronic or
 CC opportunistic infections, autoimmune diseases, asthma, fibrotic
 CC diseases, psoriasis and neurodegenerative diseases. It also
 CC promotes wound healing, regulates haematopoiesis and generates
 CC antibodies. Labelled CK beta10 can be used to identify its cognate
 CC receptor, while cells expressing the receptor can be used to screen
 CC compounds for (ant)agonist activity. The antagonist can be used to
 CC treat rheumatoid arthritis, allergies, prostaglandin dependent fever or
 CC infectious diseases, allergies, prostaglandin dependent fever and
 CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
 CC syndrome, lung inflammation and atherosclerosis. CK beta10 cDNA can
 CC be used to isolate genes encoding similar peptides, in gene therapy
 CC and for chromosome identification.
 SQ Sequence 77 AA;

Query Match 93.8%; Score 91; DB 27; Length 77;
 Best Local Similarity 83.3%; Pred. No. 2,31e-02;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 51 eicadpkexkwyg 62
 |||||||:|:|
 Qy 1 EICADPKOKWIO 12

RESULT 23

ID W22674 standard; Protein: 79 AA.

AC W22674; 19-MAR-1998 (first entry)
 DE Droll/2 chemokine beta10 or monocyte chemotactic protein 4 variant.
 KM Human; chemokine beta10; CK beta10; treatment; antagonist;
 KM solid tumour; infection; autoimmune disease; asthma; antibody;
 KM fibrotic disease; psoriasis; neurodegenerative disease;
 KM wound healing; haematopoiesis regulation; gene therapy;
 KM chromosome identification; monocyte chemotactic protein 4;
 KM leukaemia; MCP-4; Droll/2 variant.
 OS Homo sapiens.
 PN MO9731098-A1.
 PD 28-AUG-1997.
 PF 23-FEB-1996; WO-002598.
 PR 23-FEB-1996; WO-002598.
 PA (HUMA-) HUMAN GENOME SCI INC.
 PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
 PI Parmelee D, White J;
 DR WPI: 97-435153/40.
 PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
 PT protein 4 - useful to treat tumours, autoimmune disease, infection,
 PT asthma and fibrosis
 PS Example 11; Fig 5; 83pp; English.
 CC The present sequence is human chemokine beta10 (CK beta10) or
 CC monocyte chemotactic protein 4 (MCP-4) Droll/2 variant, which can
 CC be used to treat patients deficient in CK beta10, while a CK beta10
 CC antagonist can be used to reduce excessive levels of CK beta10. CK
 CC beta10 can be used to treat leukaemia, solid tumours, chronic or
 CC opportunistic infections, autoimmune diseases, asthma, fibrotic
 CC diseases, psoriasis and neurodegenerative diseases. It also
 CC promotes wound healing, regulates haematopoiesis and generates
 CC antibodies. Labelled CK beta10 can be used to identify its cognate
 CC receptor, while cells expressing the receptor can be used to screen
 CC compounds for (ant)agonist activity. The antagonist can be used to
 CC treat rheumatoid arthritis, allergies, prostaglandin dependent fever and
 CC infectious diseases, allergies, prostaglandin dependent fever and

CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
CC syndrome, lung inflammation and atherosclerosis. Ck beta10 cDNA can
CC be used to isolate genes encoding similar peptides, in gene therapy
CC and for chromosome identification.
SQ Sequence 79 AA;

Query Match 93.8%; Score 91; DB 27; Length 79;
Best Local Similarity 83.3%; Pred. No. 2,31e-02;

Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 53 eicadpkekxwq 64
|||||:|:|:|
QY 1 EICADPROKWKIO 12

RESULT 24

ID W22671 standard; Protein; 82 AA.

AC W22671;

DI 19-MAR-1998 (first entry)

DE Bac 1 chemokine beta10 or monocyte chemotactic protein 4 variant.

KM Human chemokine beta10; Ck beta10; treatment; antagonist;

KM solid tumour; infection; autoimmune disease; asthma; antibody;

KM fibrotic disease; psoriasis; neurodegenerative disease;

KM wound healing; haematopoiesis regulation; gene therapy;

KM chromosome identification; monocyte chemotactic protein 4;

KV leukemia; MCP-4; Bac 1 variant.

OS Homo sapiens.

PN W09731098-A1.

PD 28-AUG-1997.

PF 23-FEB-1996; U02598.

PR 23-FEB-1996; WO-002598.

PA (HUMA-) HUMAN GENOME SCI INC.

PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,

PI Parmelee D, White J;

DR WPI: 97-435153/40.

PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic

PT protein 4 - useful to treat tumours, autoimmune disease, infection,

PT asthma and fibrosis.

PS Example 11; Fig 5; 83pp; English.

CC The present sequence is human chemokine beta10 (Ck beta10) or

CC monocyte chemotactic protein 4 (MCP-4) Bac 1 variant, which can be

CC used to treat patients deficient in Ck beta10, while a Ck beta10

CC antagonist can be used to reduce excessive levels of Ck beta10. Ck

CC beta10 can be used to treat leukemia, solid tumours, chronic or

CC opportunistic infections, autoimmune diseases, asthma, fibrotic

CC diseases, psoriasis and neurodegenerative diseases. It also

CC promotes wound healing, regulates haematopoiesis and generates

CC antibodies. Labelled Ck beta10 can be used to identify its cognate

CC receptor, while cells expressing the receptor can be used to screen

CC compounds for (ant)agonist activity. The antagonist can be used to

CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or

CC infectious diseases, allergies, prostaglandin dependent fever and

CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic

CC syndrome, lung inflammation and atherosclerosis. Ck beta10 cDNA can

CC be used to isolate genes encoding similar peptides, in gene therapy

CC and for chromosome identification.
SQ Sequence 82 AA;

Query Match 93.8%; Score 91; DB 27; Length 82;
Best Local Similarity 83.3%; Pred. No. 2,31e-02;

Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 56 eicadpkekxwq 67
|||||:|:|:|
QY 1 EICADPROKWKIO 12

RESULT 25

ID W17665 standard; peptide; 82 AA.

AC W17665;

DI 16-DEC-1997 (first entry)

DE Stem cell mobilising chemokine Ckbeta-10.

KM Hematopoietic cell; parasitic infection; colony stimulating factor;

KM hematopoietic; immune response; bacterial infection; transplant;
KM wound healing; bone marrow; immunosuppression; regeneration;
KM neoplastic disease; viral disease; gene therapy; cytotoxic drug.
OS Synthetic.
PN W09715594-A1.

PD 01-MAY-1997.

PF 23-OCT-1996; U16959.

PR 24-OCT-1995; US-006051.

PA (SMIK) SMITHKLINE BEECHAM CORP.

PI Kreider BL, Li H, Pelus L, White JR;

DR WPI: 97-258956/23.

PT Ten new chemokine(s) able to mobilise stem cells - used where

PT increased levels of haematopoietic cells are required, e.g. to

PT increase resistance to infection

PS Claim 7; Page 11-12; 24pp; English.

CC The present sequence represents a chemokine, Ckbeta-10, which is capable

CC of mobilising stem cells. The chemokine can be used therapeutically to

CC improve stem cell mobilisation, optionally together with a colony

CC stimulating factor or other haematoregulatory agent. It can be used

CC wherever an increased level of haematopoietic cells is needed, e.g. to

CC increase the immune response to chronic infection (particularly

CC bacterial or parasitic), to promote wound healing, in (transplant)

CC patients with reduced bone marrow function as a result of

CC immunosuppressive treatment or disease, and to provide more rapid

CC regeneration of bone marrow after treatment for neoplastic or viral

CC diseases. The induced stem cells may be harvested for subsequent return

CC to the patient, optionally after they have been genetically manipulated

CC to deliver a selected gene product (gene therapy). The cells may be

CC co-administered with a cytotoxic drug.
SQ Sequence 82 AA;

Query Match 93.8%; Score 91; DB 24; Length 82;
Best Local Similarity 83.3%; Pred. No. 2,31e-02;

Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 56 eicadpkekxwq 67
|||||:|:|:|
QY 1 EICADPROKWKIO 12

RESULT 26

ID R93087 standard; Protein; 98 AA.

AC R93087; 27-AUG-1996 (first entry)

DE Human chemokine beta-10.

KM Chemokine beta-10; chemokine beta-4; Ck beta-10; Ck beta-4;

KM cytokine; leukemia; tumour; cancer; autoimmune disease; psoriasis;

KM asthma; allergy; wound healing; diagnosis; therapy.

OS Homo sapiens.

FH Key Location/Qualifiers

FT Peptide 1..23

FT /label= Sig_peptide

FT protein 25..98

FT /label= Mat_protein

PN W09605856-A1.

PD 29-FEB-1996.

PF 23-AUG-1994; U09484.

PR 23-AUG-1994; WO-U09484.

PR 08-SEP-1994; ZA-006936.

PA (HUMA-) HUMAN GENOME SCI INC.

PI Adams MD, Li H;

DR WPI: 96-151145/15.

DR N-PSDB; T17050.

PT New chemokine Ck(beta)-4 and -10 genes and polypeptide(s) - useful

PT to treat, e.g. leukemia, solid tumours and auto-immune diseases

PS Claim 19; Fig 2; 53pp; English.

CC A novel human chemokine, Ck beta-10 (R93087), was identified as

CC the product of a cDNA clone (T17050) isolated from a 9-wk early

CC human tissue cDNA library. The protein is structurally related to

CC the chemokine family. Recombinant Ck beta-10 can be obt. by

CC incorporating the cDNA into a vector and expression of the protein

CC in e.g. E. coli, COS or Sf9 cells. Ck beta-10 can be used to treat

CC solid tumours, chronic infections, psoriasis, asthma and allergy,

CC to regulate haematopoiesis, promote wound healing, and to inhibit
CC angiogenesis. It can also be used to inhibit bone marrow stem cell
CC colony form. during chemotherapy.
SQ Sequence 98 AA;

Query Match 93.8%; Score 91; DB 17; Length 98;
Best Local Similarity 83.3%; Pred. No. 2.31e-02;
Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 72 elcadpkexkvq 83
|||||:|:|:
QY 1 EICADPKQKMIQ 12

RESULT 27
ID W30191 standard; Protein; 98 AA.
AC W30191;
DT 21-MAY-1998 (first entry)
DE Monocyte chemotactic protein 5; MCP-5; human; macrophage;
KW Monocyte chemotactic protein 5; MCP-5; human; macrophage;
KW chemokine; inhibitor; antiinflammatory; atherosclerosis;
KW Crohn's disease; arthritis; angiogenesis; tumour; metastasis;
KW therapy; diagnosis; medical imaging.
OS Homo sapiens.

FH Key Location/Qualifiers
FT Peptide 1..23
FT /label= sig_peptide
FT 24..98
FT /label= Mat_protein
FT /note= "(Claim 4)"
PN WO9735982-A2.

PD 02-OCT-1997; 004898.
PF 26-MAR-1997; 004898.
PR 27-MAR-1996; US-622851.
PA (ICOS-) ICOS CORP.
PI Godiska R, Gray PW;
DR MPI: 97-489645/45.
DR N-PSDB; T90880.

TI Polynucleotide encoding monocyte chemotactic protein-5 - useful in
TI treatment of e.g. inflammation, atherosclerosis, angiogenesis and
PT tumours
PS Claim 1; Page 36-37; 47pp; English.

CC This polypeptide comprises human macrophage-derived
CC monocyte chemotactic protein-5 (MCP-5), a novel C-C chemokine.
CC Its amino acid sequence was deduced from a cDNA clone (see
CC 190880 and T90883) isolated from a human macrophage cDNA
CC library. A claimed method for producing MCP-5 comprises
CC culturing a host cell that is stably transformed or transfected
CC with MCP-5 polynucleotide. Also claimed is a hybridoma that
CC produces a monoclonal antibody (Mab) that is specifically
CC reactive with the mature MCP-5. MCP-5 (or its analogues and
CC fragments) is used to enhance the immune response in cases of
CC wounds or infections, while its inhibitors (e.g. the Mab) are
CC useful as anti-inflammatory in cases of e.g. arthritis and
CC Crohn's disease, also for treatment of atherosclerosis,
CC angiogenesis and tumour growth (or metastasis). The MCP-5
CC inhibitors can possibly also be used to reduce the damaging effects
CC of chemo- and radio-therapy on myeloid progenitor cells, and to
CC inhibit replication of HIV. MCP-5 can also be used to identify
CC its cognate receptor, while MCP-5 peptides (or the analogues or
CC receptors) are used to modulate MCP-5 activity and to identify
CC MCP-5 agonists and antagonists.
SQ Sequence 98 AA;

Query Match 93.8%; Score 91; DB 28; Length 98;
Best Local Similarity 83.3%; Pred. No. 2.31e-02;
Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 72 elcadpkexkvq 83
|||||:|:|:
QY 1 EICADPKQKMIQ 12

RESULT 28
ID W22670 standard; Protein; 98 AA.
AC W22670;
DT 19-MAR-1998 (first entry)

DE Human chemokine beta10 or monocyte chemotactic protein 4;
KW Human chemokine beta10; Ck beta10; treatment; antagonist;
KW solid tumour; infection; autoimmune disease; asthma; antibody;
KW fibrotic disease; psoriasis; neurodegenerative disease;
KW wound healing; haematopoiesis regulation; gene therapy;
KW chromosome identification; monocyte chemotactic protein 4;
KW leukaemia; MCP-4.
OS Homo sapiens.

FH Key Location/Qualifiers
FT Peptide 1..23
FT /label= sig_peptide
FT 24..98
FT /label= mat_peptide
PN WO9731098-A1.

PD 23-FEB-1996; 002598.
PF 23-FEB-1996; WO-002598.
PR (HUMA-) HUMAN GENOME SCI INC.
PA Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
PI Parmelee D, White J;
DR MPI: 97-435153/40.
DR N-PSDB; T85029.

PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
PT protein 4 - useful to treat tumours, autoimmune disease, infection,
PT asthma and fibrosis
PS Claim 1; Fig 2; 83pp; English.

CC The present sequence is human chemokine beta10 (Ck beta10) or
CC monocyte chemotactic protein 4 (MCP-4), which can be used to treat
CC patients deficient in Ck beta10, while a Ck beta10 antagonist can
CC be used to reduce excessive levels of Ck beta10. Ck beta10 can be
CC used to treat leukaemia, solid tumours, chronic or opportunistic
CC infections, autoimmune diseases, asthma, fibrotic diseases,
CC psoriasis and neurodegenerative diseases. It also promotes wound
CC healing, regulates haematopoiesis and generates antibodies.
CC Labelled Ck beta10 can be used to identify its cognate receptor,
CC while cells expressing the receptor can be used to screen compounds
CC for (ant)agonist activity. The antagonist can be used to treat
CC rheumatoid arthritis, autoimmune, chronic inflammatory or
CC infectious diseases, allergies, prostaglandin dependent fever and
CC bone marrow failure, siltosis, sarcoidosis, hyper-eosinophilic
CC syndrome, lung inflammation and atherosclerosis. Ck beta10 cDNA can
CC be used to isolate genes encoding similar peptides, in gene therapy
CC and for chromosome identification.
SQ Sequence 98 AA;

Query Match 93.8%; Score 91; DB 27; Length 98;
Best Local Similarity 83.3%; Pred. No. 2.31e-02;
Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 72 elcadpkexkvq 83
|||||:|:|:
QY 1 EICADPKQKMIQ 12

RESULT 29
ID R06398 standard; Protein; 99 AA.
AC R06398;
DT 14-DEC-1990 (first entry)
DE Human MCF precursor.
KW Monocyte chemotactic factor; antibacterial; antitumour; cancer.
OS Homo sapiens.

FH Key Location/Qualifiers
FT Peptide 24..99
FT /label= mature MCF
FT /note= "Claim 1"
PN WO9007863-A.
PD 26-JUL-1990.

misc_difference 76
/label=A or T

PF 02-JAN-1990: U00004.
 PR 01-JAN-1988: JP-00005.
 PR 03-FEB-1989: JP-026438.
 PA (USDC) US SEC OF COMMERCE.
 PI Furtant Y, Fukui T, Junichi Y, Masaaki Y, Matsushima K;
 PI Oppenheim J;
 DR MPI: 90-253802/33.
 DR P-PSDB: R06398.
 PT Human monocyte chemotactic factor type polypeptide and DNA
 PS encoding it - useful as antibacterial and antitumour agents.
 PS Claim 2: Page 25: 27pp; English.
 CC The sequence was deduced from the DNA sequence determined from
 CC three recombinant plasmids, pMCF7, pMCF25 and pMCF29 which
 CC were isolated from a cDNA library prepd. from RNA extracted from
 CC human promyelocytic leukemia cell line, HL-60 (ATCC CCL-240).
 CC vectors. In plasmids pMCF7 and pMCF29 bases 105 and 226 were
 CC T and G resp; in pMCF25 they were C and A resp. The AA at posn.
 CC 76 of the precursor protein is therefore not determined and may be
 CC either Ala or Thr. The protein may be produced by recombinant of
 CC DNA techniques in E.coli, and is useful as a drug for treatment of
 CC certain bacterial infections and cancers.
 SQ Sequence 99 AA;

Query Match 93.8%; Score 91; DB 2; Length 99;
 Best Local Similarity 83.3%; Pred. No. 2.31e-02;
 Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 73 elcxdkpkqkwq 84
 ||| |||||
 QY 1 EICADPKQKWIQ 12

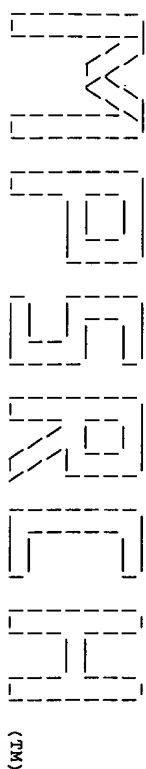
RESULT 30
 ID R26580 standard; Protein; 76 AA.
 AC R26580;
 DT 28-JAN-1993 (first entry)
 DE Sequence of bovine p6 protein.
 KM Monocyte chemoattractant; bovine p6-derivative; thrombosis; tumour;
 KM Inflammation therapy.
 OS Bos taurus.
 PN DE4125251-C.
 PD 03-SEP-1992.
 PF 31-JUL-1991: 125251.
 PR 31-JUL-1991: DE-125251.
 PA (SCHA-) SCHAPER & BRUEMME GMBH & CO KG.
 PI Gramm W, Lins E;
 DR MPI: 92-293438/36.
 PT Drug containing a bovine protein homologous to human MCP-1 - for
 PT treating inflammation, tumours, thrombosis, and immune reactions,
 PT also for diagnosis
 PS Claim 1: Page 3: 6pp; German.
 CC Poly(A+)RNA from bull seminal vesicles was used to prepare a cDNA in
 CC the expression vector lambda gtl1. 1.5 x 10(5) cDNA clones were
 CC screened with a polyclonal anti-p6 antiserum of monospecific
 CC immunoglobulin G and six positives were identified. The insert of a
 CC suitable cDNA clone, pH42, was cloned into pUC18 and sequenced.
 CC pH42 encodes the 11,114 Da precursor of p6. It is called Monocyte
 CC Chemoattractant (MCP-1), which is a homologue of human (h)MCP-1.
 CC There is 72% overall AA sequence homology to hMCP-1 with the signal
 CC peptide showing 100% and the central region showing 89% homology.
 SQ Sequence 76 AA;

Query Match 92.8%; Score 90; DB 5; Length 76;
 Best Local Similarity 83.3%; Pred. No. 2.94e-02;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 50 elcadpkqkwq 61
 |||||
 QY 1 EICADPKQKWIQ 12

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Msrch_bp protein - protein database search, using Smith-Waterman algorithm

Run on: Thu Apr 1 07:42:51 1999; MasPar time 3.31 Seconds

Tabular output not generated. 135.879 Million cell updates/sec

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Gap 15

Searched: 116738 segs, 37463448 residues

Post-processing: Minimum Match 0%
Listing first 100 summaries

Database: p1r58
1:p1r1 2:p1r2 3:p1r3 4:p1r4

Statistics: Mean 24.746; Variance 36.390; scale 0.680

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description	Pred. No.
1	95	97.9	99	2	A60299	4.69e-08
2	94	96.9	99	2	JC2136	7.85e-08
3	90	92.8	99	2	A39296	6.07e-07
4	90	92.8	99	2	JC2336	6.07e-07
5	89	91.8	125	2	I46857	1.01e-06
6	88	90.7	109	2	A54678	1.67e-06
7	86	88.7	99	2	JC2417	4.56e-06
8	86	88.7	120	2	I46147	4.56e-06
9	84	86.6	97	2	JC4912	1.23e-05
10	82	84.5	95	2	JN0841	3.31e-05
11	82	84.5	96	2	JC2478	3.31e-05
12	82	84.5	96	2	I46099	3.31e-05
13	82	84.5	101	2	I46997	3.31e-05
14	82	84.5	101	2	I46997	3.31e-05
15	82	84.5	103	2	A53096	3.31e-05
16	82	84.5	103	2	A44253	3.31e-05
17	81	83.5	92	2	I52322	5.41e-05
18	80	82.5	99	2	JC5295	8.82e-05
19	79	81.4	101	2	I46871	1.43e-04
20	78	80.4	148	2	A30209	2.32e-04
21	77	79.4	89	2	A53497	3.76e-04
22	77	79.4	89	2	I53416	3.76e-04
23	77	79.4	93	2	I81182	3.76e-04

24	77	79.4	93	2	G01540	3.76e-04
25	76	76.3	92	2	A32393	1.57e-03
26	74	76.3	148	2	S07723	1.57e-03
27	73	75.3	99	2	A37034	2.51e-03
28	73	75.3	101	2	I48148	2.51e-03
29	72	74.2	91	1	A46539	4.01e-03
30	70	72.2	50	2	C60407	1.01e-02
31	70	72.2	92	1	A31767	1.01e-02
32	70	72.2	92	1	A30574	1.01e-02
33	70	72.2	93	2	B35673	1.01e-02
34	68	70.1	120	2	JE0177	2.53e-02
35	67	69.1	92	2	I46730	3.97e-02
36	66	68.0	91	1	A28815	6.23e-02
37	66	68.0	97	1	A48093	6.23e-02
38	66	68.0	114	1	ETMSL	6.23e-02
39	64	66.0	760	2	S55520	1.51e-01
40	61	62.9	103	2	I50417	5.59e-01
41	61	62.9	103	2	I50417	5.59e-01
42	60	61.9	92	2	C30552	8.57e-01
43	60	61.9	117	2	S51775	8.57e-01
44	60	61.9	1053	2	D71466	8.57e-01
45	59	59.8	114	1	ETMUL	1.31e+00
46	58	59.8	460	2	E64019	1.99e+00
47	57	58.8	116	2	I49555	3.02e+00
48	57	58.8	176	2	G65065	3.02e+00
49	57	58.8	187	2	C71317	3.02e+00
50	55	56.7	192	2	F69804	6.83e+00
51	55	56.7	192	2	E71437	6.83e+00
52	55	56.7	378	2	A49337	6.83e+00
53	54	55.7	187	2	A42465	1.02e+01
54	54	55.7	26926	1	I38344	1.02e+01
55	53	54.6	140	1	WVZM3	1.52e+01
56	53	54.6	145	2	S76877	1.52e+01
57	53	54.6	350	2	S51406	1.52e+01
58	53	54.6	397	2	S67061	1.52e+01
59	53	54.6	491	2	C69827	1.52e+01
60	53	54.6	627	2	C69827	1.52e+01
61	53	54.6	828	2	S52393	1.52e+01
62	52	53.6	349	2	D64134	2.24e+01
63	52	53.6	825	2	S75173	2.24e+01
64	52	53.6	841	2	A43254	2.24e+01
65	52	53.6	1872	2	JC4976	2.24e+01
66	52	53.6	2179	1	GNNYH4	2.24e+01
67	51	52.6	37	2	B70566	3.30e+01
68	51	52.6	37	2	S58585	3.30e+01
69	51	52.6	37	1	R5R236	3.30e+01
70	51	52.6	37	1	R5R236	3.30e+01
71	51	52.6	37	1	R5R236	3.30e+01
72	51	52.6	196	2	E84101	3.30e+01
73	51	52.6	219	2	S68364	3.30e+01
74	51	52.6	532	1	IFBY	3.30e+01
75	51	52.6	532	2	S27373	3.30e+01
76	51	52.6	573	2	C64611	3.30e+01
77	51	52.6	899	2	G02428	3.30e+01
78	51	52.6	905	2	A27410	3.30e+01
79	51	52.6	915	2	B46225	3.30e+01
80	51	52.6	915	2	A48225	3.30e+01
81	51	52.6	915	2	JC6148	3.30e+01
82	51	52.6	1038	2	A71437	3.30e+01
83	51	52.6	1422	2	B71437	3.30e+01
84	50	51.5	108	2	G60340	4.83e+01
85	50	51.5	108	2	G70567	4.83e+01
86	50	51.5	281	1	A47629	4.83e+01
87	50	51.5	332	2	H69494	4.83e+01
88	50	51.5	379	2	JC5303	4.83e+01
89	50	51.5	430	2	JC5163	4.83e+01
90	50	51.5	467	2	S64450	4.83e+01
91	50	51.5	467	2	S61141	4.83e+01
92	50	51.5	505	2	S38534	4.83e+01
93	50	51.5	659	2	S30893	4.83e+01
94	50	51.5	929	2	S75098	4.83e+01
95	50	51.5	1675	1	LRRTH	4.83e+01
96	49	50.5	37	2	A64682	7.04e+01

cytokine SDF-1-beta - 3.76e-04
macrophage inflammatory 1.57e-03
immediate-early serum 1.57e-03
interleukin-8 precurs 2.51e-03
Neutrophil attractant 2.51e-03
monocyte chemoattract 4.01e-03
macrophage adherence-in 1.01e-02
macrophage inflammatory 1.01e-02
macrophage inflammatory 1.01e-02
LD78-beta protein pre 2.53e-02
immune activation and monocy 3.97e-02
immune activation gsn 6.23e-02
monocyte chemoattract 6.23e-02
macrophage cytokine FI 6.23e-02
lymphotactin precursor 6.23e-02
Chitin synthetase I - 1.51e-01
RSV-induced protein - 5.59e-01
transformation-induce 5.59e-01
macrophage inflammatory 8.57e-01
macrophage inflammatory 8.57e-01
probable ribonucleosid 8.57e-01
lymphotactin precursor 1.31e+00
hypothetical protein 1.99e+00
gene C10 protein - mo 3.02e+00
hypothetical protein 3.02e+00
hypothetical protein 3.02e+00
hypothetical protein 6.83e+00
probable resistance g 6.83e+00
alanine dehydrogenase 6.83e+00
polarity suppression 1.02e+01
titin, cardiac muscle 1.02e+01
HM3 protein - sheep p 1.52e+01
hypothetical protein 1.52e+01
hypothetical protein 1.52e+01
hypothetical protein 1.52e+01
1-aminocyclopropane-1 1.52e+01
DNA gyrase-like prote 1.52e+01
beta-galactosidase (E 1.52e+01
probable ATP-binding 2.24e+01
hypothetical protein 2.24e+01
protein-tyrosine-phos 2.24e+01
plexin 3 - mouse 2.24e+01
genome polyploid - 2.24e+01
probable ribosomal pr 3.30e+01
ribosomal protein L36 3.30e+01
ribosomal protein L36 3.30e+01
ribosomal protein L36 3.30e+01
TC3 protein - mouse 3.30e+01
invasion protein - Ha 3.30e+01
pectate lyase (Ec 4.2 3.30e+01
beta-fructofuranosida 3.30e+01
hypothetical protein 3.30e+01
prohormone convertase 3.30e+01
plasma cell membrane 3.30e+01
probable proprotein c 3.30e+01
subtilisin-like propr 3.30e+01
subtilisin-like propr 3.30e+01
probable resistance g 3.30e+01
probable resistance g 3.30e+01
hypothetical protein 4.83e+01
N-terminus of I56110 4.83e+01
cell surface glycopro 4.83e+01
pyruvate formate-lyas 4.83e+01
hypothetical 41.7K pr 4.83e+01
ultraviral light res 4.83e+01
probable membrane pro 4.83e+01
probable membrane pro 4.83e+01
cyclochrome P450 76A2 4.83e+01
nuc protein - Synch 4.83e+01
hypothetical protein 4.83e+01
clathrin heavy chain 4.83e+01
ribosomal protein L36 7.04e+01

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97 49 50.5 37 2 S73217 ribosomal protein l36 7.04e+01
98 49 50.5 389 2 E71113 probable nonspecific 7.04e+01
99 49 50.5 550 2 164203 aspartate--trNA ligas 7.04e+01
100 49 50.5 662 1 VCMV1B env polypotein - fel 7.04e+01

ALIGNMENTS

RESULT 1
ENTRY A60299 #type complete
TITLE monocyte chemoattractant protein 1 precursor - human
ALTERNATE_NAMES GDCP-1; glioma-derived monocyte chemotactic factor 1; MCAF;
MCP-1; monocyte chemotactic factor 1; monocyte secretory
protein; tumor-derived chemotactic factor
glioma-derived chemotactic factor 2 (GDCF-2)
#formal_name Homo sapiens #common_name man
20-Feb-1993 #sequence_revision 20-Feb-1993 #text_change
20-Mar-1998

CONTAINS
ORGANISM
DATE

ACCESSIONS
A35474; A33476; S03339; I51841; A60299; A32300; A32396;
A34561; I57488; JCI096

REFERENCE
#authors A35474
#journal Shyy, Y.J.; Li, Y.S.; Kolatukudy, P.E.
#title Biochem. Biophys. Res. Commun. (1990) 169:346-351
#title Structure of human monocyte chemotactic protein gene and its
#title regulation by TPA.
#cross-references MUID:90290466
#accession A35474
#molecule_type DNA
#residues 1-99 ##label SHY

REFERENCE
#cross-references GB:M37719; NID:g187447; PID:g487124
A33476
#authors Rollins, B.J.; Stier, P.; Ernst, T.; Wong, G.G.
#journal Mol. Cell. Biol. (1989) 9:4687-4695
#title The human homolog of the JE gene encodes a monocyte secretory
#title protein.
#cross-references MUID:90097880
#accession A33476
#molecule_type mRNA
#residues 1-99 ##label ROL
#cross-references GB:M30816; GB:M31625; GB:M31626; NID:g188701;
PID:g386961

REFERENCE
S03339
#authors Yoshimura, T.; Yuhki, N.; Moore, S.K.; Appella, E.; Lerman,
M.I.; Leonard, E.J.
#journal FEBS Lett. (1989) 244:487-493
#title Human monocyte chemoattractant protein-1 (MCP-1). Full-length
#title cDNA cloning, expression in mitogen-stimulated blood
#title mononuclear leukocytes, and sequence similarity to mouse
#title competence gene JE.
#cross-references MUID:89153605
#accession S03339
#status not compared with conceptual translation
#molecule_type mRNA
#residues 1-99 ##label YOS
#cross-references GB:X14768; NID:g34513; PID:g34514
##experimental_source glioma cell line U-105MG

REFERENCE
I51841
#authors Yoshimura, T.; Leonard, E.J.
#journal Adv. Exp. Med. Biol. (1991) 305:47-56
#title Human monocyte chemoattractant protein-1 (MCP-1).
#cross-references MUID:92095166
#accession I51841
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-99 ##label Y02
#cross-references GB:S71513; NID:g240867; PID:g240868

REFERENCE
A60299
#authors Botatzki, B.; Colotta, F.; Sica, A.; Nobili, N.; Mantovani,
A.
#journal Int. J. Cancer (1990) 45:795-797
#title A chemoattractant expressed in human sarcoma cells
#title (tumor-derived chemotactic factor, TDCF) is identical to
#title monocyte chemoattractant protein-1/monocyte chemotactic and

```

```

#accession A60299 activating factor (MCP-1/MCAF).
#status not compared with conceptual translation
#molecule_type mRNA
#residues 1-99 ##label BOT

REFERENCE
A32300
#authors Furutani, Y.; Nomura, H.; Notake, M.; Oyama, Y.; Fukui, T.;
Yamada, M.; Larsen, C.G.; Oppenheim, J.U.; Matsushima, K.
#journal Biochem. Biophys. Res. Commun. (1989) 159:249-255
#title Cloning and sequencing of the cDNA for human monocyte
#title chemotactic and activating factor (MCAF).
#cross-references MUID:89165862
#accession A32300
#status not compared with conceptual translation
#molecule_type mRNA
#residues 1-99 ##label FUR
#cross-references GB:M24545; NID:g187434; PID:g307163

REFERENCE
A32396
#authors Robinson, E.A.; Yoshimura, T.; Leonard, E.J.; Tanaka, S.;
Griffin, P.R.; Shabanowitz, J.; Hunt, D.F.; Appella, E.
#journal Proc. Natl. Acad. Sci. U.S.A. (1989) 86:1850-1854
#title Complete amino acid sequence of a human monocyte
#title chemoattractant, a putative mediator of cellular immune
#title reactions.
#cross-references MUID:89184525
#accession A32396
#molecule_type protein
#residues 'X', 25-99 ##label ROB

REFERENCE
A34561
#authors Decock, B.; Conlins, R.; Lenaerts, J.P.; Billiau, A.; Van
Damme, J.
#journal Biochem. Biophys. Res. Commun. (1990) 167:904-909
#title Identification of the monocyte chemotactic protein from human
#title osteosarcoma cells and monocytes: detection of a novel
#title N-terminally processed form.
#cross-references MUID:90211336
#accession A34561
#molecule_type protein
#residues 29-33, 'XX', 36-52; 82-92 ##label DEC

REFERENCE
I57488
#authors Li, Y.S.; Shyy, Y.J.; Wright, J.G.; Valente, A.J.; Cornhill,
J.F.; Kolatukudy, P.E.
#journal Mol. Cell. Biochem. (1993) 126:61-68
#title The expression of monocyte chemotactic protein (MCP-1) in
#title human vascular endothelium in vitro and in vivo.
#cross-references MUID:94150478
#accession I57488
#status translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-99 ##label LYX
#cross-references GB:S69738; NID:g545464; PID:g545465

REFERENCE
JCI096
#authors Ye, Q.N.; Su, G.F.; Yuan, Y.; Huang, C.F.
#journal Chinese J. Microbiol. Immunol. (1994) 14:29-32
#title The PCR, cloning and sequencing of human monocyte
#title chemoattractant protein-1 (MCP-1) gene.
#accession JCI096
#molecule_type mRNA
#residues 24-28, 'Q', 30-99 ##label YEQ

GENETICS
#gene GDB:SCYA2
#map_position 17q11.2-17q12
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS cytokine; glycoprotein; inflammation; pyroglutamic acid
FEATURE
1-23
24-99
29-99
24 #domain signal sequence #status predicted #label SIG\
#product monocyte chemoattractant protein 1 #status
#product monocyte chemoattractant protein 1 #status
experimental #label MAT\
#status experimental #label MAT2\
#modified site pyrrolidone carboxylic acid (Gln) (in
mature form) #status experimental\

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37      #binding_site carbohydrate (asn) (covalent) #status
SUMMARY      #length 99 #molecular-weight 11025 #checksum 7984
Query Match      97.9%; Score 95; DB 2; Length 99;
Best Local Similarity 91.7%; Pred. No. 4,69e-08;
Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db      73 EICADPKOKRWQ 84
      1 EICADPKOKRWQ 12

RESULT      2
ENTRY      JC2136      #type complete
TITLE      monocytic chemoattractant protein-1 precursor - pig
ORGANISM   #formal_name Sus scrofa domestica #common_name domestic pig
DATE       30-Sep-1993 #sequence_revision 20-Aug-1994 #text_change
ACCESSIONS JC2136; S57498
REFERENCE   JC2136
AUTHORS     Hosang, K.; Knoke, I.; Klaudiny, J.; Wempe, F.; Wuttke, W.;
            Scheit, K.H.
            Biochem. Biophys. Res. Commun. (1994) 199:962-968
            Porcine luteal cells express monocytic chemoattractant
            protein-1 (MCP-1): Analysis by polymerase chain reaction
            and cDNA cloning.
#accession  JC2136
#molecule_type mRNA
#residues   1-99 ##label HOS
REFERENCE   S57497
AUTHORS     Zach, O.
            Submitted to the EMBL Data Library, July 1994
#accession  S57498
#status     preliminary
#molecule_type mRNA
#residues   1-99 ##label ZAC
#cross-references EMBL:X79416; NID:g872312; PID:g872313
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS     glycoprotein

SUMMARY      #length 99 #molecular-weight 10976 #checksum 9768
Query Match      96.9%; Score 94; DB 2; Length 99;
Best Local Similarity 83.3%; Pred. No. 7,85e-08;
Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db      73 EICADPKOKRWQ 84
      1 EICADPKOKRWQ 12

RESULT      3
ENTRY      A39296      #type complete
TITLE      monocytic chemoattractant protein 1 precursor - bovine
ALTERNATE_NAMES #formal_name Bos primigenius taurus #common_name cattle
ORGANISM       03-Aug-1992 #sequence_revision 03-Aug-1992 #text_change
DATE           31-Oct-1997
ACCESSIONS     A39296; B39296
REFERENCE       A39296
AUTHORS         Wempe, F.; Henschen, A.; Scheit, K.H.
JOURNAL         DNA Cell Biol. (1991) 10:671-679
#title          Gene expression and cDNA cloning identified a major basic
                protein constituent of bovine seminal plasma as bovine
                monocytic-chemoattractant protein-1 (MCP-1).
#cross-references MUID:92096117
#accession      A39296

#molecule_type mRNA
#residues       1-99 ##label WEM
#cross-references GB:M84602; GB:M85264; NID:g163394; PID:g163395
#accession      B39296
#molecule_type protein
#residues       50-68, 'X', 70-74, 'X', 76 ##label W82
#experimental_source seminal vesicle
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS        glycoprotein
FEATURE         1-23
                24-99
                #domain signal sequence #status predicted #label SIG\
                #product monocytic chemoattractant protein 1 #status
                #predicted #label MAT\
                #binding_site carbohydrate (asn) (covalent) #status
                predicted

SUMMARY      #length 99 #molecular-weight 11114 #checksum 9401
Query Match      92.8%; Score 90; DB 2; Length 99;
Best Local Similarity 83.3%; Pred. No. 6,07e-07;
Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db      73 EICADPKOKRWQ 84
      1 EICADPKOKRWQ 12

RESULT      4
ENTRY      JC2336      #type complete
TITLE      monocytic chemoattractant protein-1 - bovine
ORGANISM   #formal_name Bos primigenius indicus #common_name zebu cattle
DATE       20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change
ACCESSIONS JC2336
REFERENCE   JC2336
AUTHORS     Wempe, F.; Kuhlmann, J.K.; Scheit, K.H.
            Biochem. Biophys. Res. Commun. (1994) 202:1272-1279
            Characterization of the bovine monocytic chemoattractant
            protein-1 gene.
#accession  JC2336
#molecule_type protein
#residues   1-99 ##label WEM

GENETICS     #gene
            #introns
CLASSIFICATION #length 99 #molecular-weight 11114 #checksum 9401
SUMMARY      #length 99 #molecular-weight 11114 #checksum 9401
Query Match      92.8%; Score 90; DB 2; Length 99;
Best Local Similarity 83.3%; Pred. No. 6,07e-07;
Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db      73 EICADPKOKRWQ 84
      1 EICADPKOKRWQ 12

RESULT      5
ENTRY      I46857      #type complete
TITLE      monocytic chemoattractant protein-1 - rabbit
ALTERNATE_NAMES #formal_name Oryctolagus cuniculus #common_name domestic
ORGANISM       14-Feb-1997 #sequence_revision 14-Feb-1997 #text_change
DATE           09-May-1997
ACCESSIONS     I46857
REFERENCE       I46857
AUTHORS         Yoshimura, T.; Yukki, N.
JOURNAL         J. Immunol. (1991) 146:3483-3488
#title          Neutrophil attractant/activation protein-1 and monocytic
                chemoattractant protein-1 in rabbit: cDNA cloning and their
                expression in spleen cells.
#cross-references MUID:91225489
#accession      I46857
#status         preliminary; translated from GB/EMBL/DBJ
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##molecule_type mRNA
##residues 1-125 ##label YOS
##cross-references GB:M57440; NID:g165469; PID:g165470
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 125 #molecular-weight 13776 #checksnum 4498

Query Match 91.8%; Score 89; DB 2; Length 125;
Best local similarity 90.9%; Pred. No. 1.01e-06;
Matches 10; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 74 ICADPKQKMWQ 84
|||||:|
Oy 2 ICADPKQKMWQ 12

RESULT 6
ENTRY A54678 #type complete
TITLE monocytic chemotactic protein 3 precursor - human
ALTERNATE_NAMES monocytic chemotactic protein 3 MCP-3
ORGANISM #formal_name Homo sapiens #common_name man
DATE 28-Oct-1994 #sequence_revision 28-Oct-1994 #text_change
24-Sep-1998
ACCESSIONS A54678; J01478; S32222
REFERENCE A54678
#authors Odenakker, G.; Fiten, P.; Nys, G.; Froyen, G.; Van Roy, N.;
#journal Speleman, F.; Laureys, G.; Van Damme, J.
#title Genomics (1994) 21:403-408
#description The human MCP-3 gene (SCYA7): cloning, sequence analysis, and
#accession assignment to the C-C chemokine gene cluster on chromosome
17q11.2-q12.
A54678
#molecule_type DNA
##residues 1-109 ##label OPD
##cross-references GB:X72309
REFERENCE J01478
#authors Odenakker, G.; Froyen, G.; Fiten, P.; Proost, P.; Van Damme,
J.
#journal Biochem. Biophys. Res. Commun. (1993) 191:535-542
#title Human monocyte chemotactic protein-3 (MCP-3): Molecular
#accession cloning of the cDNA and comparison with other chemokines.
J01478
#molecule_type mRNA
##residues 1-109 ##label OP2
REFERENCE S32222
#authors Minty, A.; Chalon, P.; Guillemot, J.C.; Kaghad, M.; Liauzun,
P.; Megazi, M.; Miloux, B.; Minty, C.; Ramond, P.; Vita,
N.; Luper, J.; Shire, D.; Ferrara, P.; Caput, D.
#submission submitted to the EMBL Data Library, March 1993
#description Molecular cloning of MCP-3: a human monocyte-derived monocyte
chemoattractant protein.
S32222
#accession
#molecule_type mRNA
##residues 1-109 ##label MIN
##cross-references EMBL:X71087; NID:q288396; PID:q288397
COMMENT This protein induces proteinase secretion and chemotaxis by
macrophages and monocytes.

GENETICS
#gene GDB:SCYA7; SCYA6; MCP-3
#map_position 17q11-17q12
#intron 36/1: 75/2
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS cytokine; glycoprotein; inflammation
FEATURE
1-33 #domain signal sequence #status predicted #label SIG\
34-109 #product monocyte chemotactic protein 3 #status
#binding_site carboxylate (Asn) (covalent) #status
predicted
SUMMARY #length 109 #molecular-weight 12356 #checksnum 1535

Query Match 90.7%; Score 88; DB 2; Length 109;
Best local similarity 83.3%; Pred. No. 1.67e-06;

```

```

Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 83 EICADPTOKRWQ 94
QY 1 EICADPKOKRWIO 12

RESULT 7
ENTRY JC2417 #type complete
TITLE monocYTE chemoattractant protein-2 - pig
ORGANISM #formal_name Sus scrofa domestica #common_name domestic pig
DATE 24-Feb-1995 #sequence_revision 24-Feb-1995 #text_change 03-May-1996
ACCESSIONS JC2417
REFERENCE JC2417
AUTHORS Hosang, K.; Knoke, I.; Klaudiny, J.; Wempe, F.; Wuttke, W.; Schell, K.H.
#journal Biochem. Biophys. Res. Commun. (1994) 205:148-153
#title Porcine luteal cells express monocYTE chemoattractant protein-2 (MCP-2): Analysis by cDNA cloning and northern analysis.
#accession JC2417
##molecule_type mRNA
##residues 1-99 ##label HOS
##experimental_source corpus luteum
CLASSIFICATION #superfamily macrophage inflammatory protein
FEATURE 1-23 #domain signal sequence #status predicted #label SIG\
24-99 #product monocYTE chemoattractant protein-2 #status predicted #label MAR
SUMMARY #length 99 #molecular_weight 10903 #checksum 7556

Query Match 88.7%; Score 86; DB 2; Length 99;
Best Local Similarity 75.0%; Pred. No. 4.56e-06;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 73 EVCADPPOKRWQ 84
QY 1 EICADPKOKRWIO 12

RESULT 8
ENTRY 148147 #type complete
TITLE monocYTE chemoattractant protein-1 - guinea pig
ORGANISM #formal_name Cavia porcellus #common_name guinea pig
DATE 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 09-May-1997
ACCESSIONS 148147
REFERENCE 148147
AUTHORS Yoshimura, T.
#journal J. Immunol. (1993) 150:5025-5032
#title cDNA cloning of guinea pig monocYTE chemoattractant protein and expression of the recombinant protein.
#cross_references MUID:93267104
#accession 148147
#status preliminary: translated from GB/EMBL/DBJ
##molecule_type mRNA
##residues 1-120 ##label RES
#cross_references GB:L04985; NID:9349820; PID:9349821
GENETICS MCP-1
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 120 #molecular_weight 13741 #checksum 9252

Query Match 88.7%; Score 86; DB 2; Length 120;
Best Local Similarity 75.0%; Pred. No. 4.56e-06;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 71 EVCADPTOKRWQ 82
QY 1 EICADPKOKRWIO 12

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RESULT 9
ENTRY JC4912 #type complete
TITLE eotaxin - human
ORGANISM #formal_name Homo sapiens #common_name man
DATE 01-Nov-1996 #sequence_revision 01-Nov-1996 #text_change 08-Sep-1997
ACCESSIONS JC4912
REFERENCE JC4912
#authors Bartels, J.; Schluter, C.; Richter, E.; Noso, N.; Kulke, R.; Christophers, E.; Schroeder, J.M.
#journal Biochem. Biophys. Res. Commun. (1996) 225:1045-1051
#title Human dermal fibroblasts express eotaxin: Molecular cloning, mRNA expression, and identification of eotaxin sequence variants.
#accession JC4912
#status preliminary
#molecule_type mRNA
#residues 1-97 #label BAR
#cross-references EMBL:Z75668; NID:G1531982; PID:G1531983
#experimental_source dermal fibroblast
COMMENT This protein has eosinophil specific chemotactic activity.
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS fibroblast
FEATURE 1-18
1-97 #domain signal sequence #status predicted #label SIG\
SUMMARY #product eotaxin #status predicted #label MAT
#length 97 #molecular_weight 10790 #checksum 448
Query Match 86.6%; Score 84; DB 2; Length 97;
Best Local Similarity 66.7%; Pred. No. 1.23e-05;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;
Db 71 ICADPKKKWQ 82
OY 1 EICADPKKKWQ 12
RESULT 10
ENTRY JN0841 #type complete
TITLE Interleukin-8 - dog
ORGANISM #formal_name Canis lupus familiaris #common_name dog
DATE 19-May-1994 #sequence_revision 19-May-1994 #text_change 12-Apr-1995
ACCESSIONS JN0841
REFERENCE JN0841
#authors Ishikawa, J.; Suzuki, S.; Hotta, K.; Hirota, Y.; Mizuno, S.; Suzuki, K.
#journal Gene (1993) 131:305-306
#title Cloning of a canine gene homologous to the human Interleukin-8-encoding gene.
#accession JN0841
#molecule_type DNA
#residues 1-95 #label ISH
COMMENT This protein is a polymorphonuclear leukocytes chemotactic factor and is involved in the host defense function.
GENETICS 22/1; 67/2
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 95 #molecular_weight 10611 #checksum 3157
Query Match 84.5%; Score 82; DB 2; Length 95;
Best Local Similarity 66.7%; Pred. No. 3.31e-05;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;
Db 75 EVCCLDPKKWQ 86
OY 1 EICADPKKKWQ 12
RESULT 11
ENTRY JC2478 #type complete
TITLE eotaxin - rat
ORGANISM #formal_name Rattus norvegicus #common_name Norway rat

DATE 21-Feb-1995 #sequence_revision 05-Apr-1995 #text_change 08-Sep-1997
ACCESSIONS JC2478
REFERENCE JC2478
#authors Jose, P.J.; Adcock, I.M.; Griffiths-Johnson, D.A.; Berkman, N.; Wells, T.N.C.; Williams, T.J.; Power, C.A.
#journal Biochem. Biophys. Res. Commun. (1994) 205:788-794
#title Botaxin: Cloning of an eosinophil chemottractant cytokine and increased mRNA expression in allergen-challenged guinea-pig lungs.
#accession JC2478
#molecule_type mRNA
#residues 1-96 #label JOS
#cross-references EMBL:X77603; NID:G602551; PID:G602552
COMMENT This protein is identified as a potent eosinophil chemottractant.
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS glycoprotein
FEATURE 1-23
24-96 #domain signal sequence #status predicted #label SIG\
93 #product eotaxin #status predicted #label MAT\
#binding_site carbohydrate (Thr) (covalent) #status predicted
SUMMARY #length 96 #molecular_weight 10695 #checksum 7329
Query Match 84.5%; Score 82; DB 2; Length 96;
Best Local Similarity 81.8%; Pred. No. 3.31e-05;
Matches 9; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
Db 71 ICADPKKKWQ 81
OY 2 ICADPKKKWQ 12
RESULT 12
ENTRY I48099 #type complete
TITLE eotaxin precursor - guinea pig
ORGANISM #formal_name Cavia porcellus #common_name guinea pig
DATE 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 09-May-1997
ACCESSIONS I48099
REFERENCE I48099
#authors Rothenberg, M.E.; Luster, A.D.; Lilly, C.M.; Drazen, J.M.; Leder, P.
#journal J. Exp. Med. (1995) 181:1211-1216
#title Constitutive and allergen-induced expression of eotaxin mRNA in the guinea pig lung.
#cross-references MVID:95173589
#accession I48099
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-96 #label RES
#cross-references EMBL:U18941; NID:G687655; PID:G687656
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 96 #molecular_weight 10753 #checksum 7236
Query Match 84.5%; Score 82; DB 2; Length 96;
Best Local Similarity 81.8%; Pred. No. 3.31e-05;
Matches 9; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
Db 71 ICADPKKKWQ 81
OY 2 ICADPKKKWQ 12
RESULT 13
ENTRY I46997 #type complete
TITLE Interleukin-8 - sheep
ORGANISM #formal_name Ovis sp. #common_name sheep
DATE 21-Feb-1997 #sequence_revision 21-Feb-1997 #text_change 09-May-1997
ACCESSIONS I46997
REFERENCE I46997
#authors Seow, H.F.; Yoshimura, T.; Wood, P.R.; Colditz, I.G.

#journal Immunol. Cell Biol. (1994) 72:398-405
#title Cloning, sequencing, expression and inflammatory activity in
#cross-references MUID:95137691
#accession 146997
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-101 #label SEO
#cross-references GB:S74436; NID:g786590; PID:g786591
GENETICS
#gene OIL-8
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 101 #molecular-weight 11292 #checksum 294

Query Match 84.5%; Score 82; DB 2; Length 101;
Best Local Similarity 66.7%; Pred. No. 3.31e-05;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 75 EVCLDPKREKWQ 86
QY 1 EICADPKOKWKI 12

RESULT 14
ENTRY S42496 #type complete
TITLE Interleukin 8 - sheep
ORGANISM #formal_name Ovis orientalis aries, Ovis ammon aries
#common_name domestic sheep
DATE 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 08-Sep-1997
ACCESSIONS S42496
REFERENCE Legasteleis, I.; Greenland, T.; Arnaud, P.; Mornex, J.F.; Cordier, G.
#submission submitted to the EMBL Data Library, March 1994
#description Nucleotide sequence of ovine interleukin 8 cDNA using polymerase chain reaction.
#accession S42496
#status preliminary
#molecule_type mRNA
#residues 1-101 #label LEC
#cross-references EMBL:X78306; NID:g463253; PID:g463254
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 101 #molecular-weight 11292 #checksum 294

Query Match 84.5%; Score 82; DB 2; Length 101;
Best Local Similarity 66.7%; Pred. No. 3.31e-05;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 75 EVCLDPKREKWQ 86
QY 1 EICADPKOKWKI 12

RESULT 15
ENTRY A53096 #type complete
TITLE Interleukin-8 precursor - pig
ORGANISM #formal_name Sus scrofa domestica #common_name domestic pig
DATE 02-Jun-1995 #sequence_revision 02-Jun-1995 #text_change 08-Sep-1997
ACCESSIONS A53096
REFERENCE Lin, G.; Pearson, A.E.; Scamurra, R.W.; Zhou, Y.; Baarsch, M.J.; Weiss, D.J.; Murttaugh, M.P.
#journal J. Biol. Chem. (1994) 269:77-85
#title Regulation of interleukin-8 expression in porcine alveolar macrophages by bacterial lipopolysaccharide.
#accession A53096
#status preliminary
#molecule_type mRNA
#residues 1-103 #label LIN
#cross-references GB:M86923; NID:g164520; PID:g164521
CLASSIFICATION #superfamily beta-thromboglobulin

SUMMARY #length 103 #molecular-weight 11633 #checksum 8835

Query Match 84.5%; Score 82; DB 2; Length 103;
Best Local Similarity 66.7%; Pred. No. 3.31e-05;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 75 EVCLDPKREKWQ 86
QY 1 EICADPKOKWKI 12

RESULT 16
ENTRY A44253 #type complete
TITLE alveolar macrophage chemotactic factor-1 (AMCF-1)
ORGANISM #formal_name Sus scrofa domestica #common_name domestic pig
DATE 30-Apr-1993 #sequence_revision 18-Nov-1994 #text_change 23-Feb-1996
ACCESSIONS A44253
REFERENCE Goodman, R.B.; Foster, D.C.; Mathewes, S.L.; Osborn, S.G.; Kulper, J.L.; Forstrom, J.W.; Martin, T.R.
#journal Biochemistry (1992) 31:10483-10490
#title Molecular cloning of porcine alveolar macrophage-derived neutrophil chemotactic factors I and II; identification of porcine IL-8 and another interleukin-alpha protein.
#cross-references MUID:93041741
#accession A44253
#status preliminary
#molecule_type mRNA
#residues 1-103 #label GOO
#experimental_source alveolar macrophage
#note sequence extracted from NCBI backbone (NCBIN:117415, NCBIP:117416)
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 103 #molecular-weight 11677 #checksum 8904

Query Match 84.5%; Score 82; DB 2; Length 103;
Best Local Similarity 66.7%; Pred. No. 3.31e-05;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 75 EVCLDPKREKWQ 86
QY 1 EICADPKOKWKI 12

RESULT 17
ENTRY I52322 #type complete
TITLE macrophage inflammatory protein-1alpha - rat
ORGANISM #formal_name Rattus norvegicus #common_name Norway rat
DATE 29-May-1998 #sequence_revision 29-May-1998 #text_change 02-Jul-1998
ACCESSIONS I52322
REFERENCE Shi, M.M.; Godleski, J.J.; Paulauskis, J.D.
#journal Biochem. Biophys. Res. Commun. (1995) 211:289-295
#title Molecular cloning and posttranscriptional regulation of macrophage inflammatory protein-1 alpha in alveolar macrophages.
#cross-references MUID:95298037
#accession I52322
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-92 #label RES
#cross-references EMBL:U22414; NID:g790632; PID:g790633
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 92 #molecular-weight 10335 #checksum 3184

Query Match 83.5%; Score 81; DB 2; Length 92;
Best Local Similarity 66.7%; Pred. No. 5.41e-05;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 71 QICADPKREKWQ 82

OY :|||||: 1:1
1 EICADPKOKWIO 12

RESULT 18
ENTRY JC5295 #type complete
TITLE monocytic chemotactic protein-2 - human
ORGANISM #formal_name Homo sapiens #common_name man
DATE 02-May-1997 #sequence_revision 18-Jul-1997 #text_change
31-Oct-1997

ACCESSIONS
REFERENCE JC5295
#authors Van Collie, E.; Froyen, G.; Nomiya, H.; Miura, R.; Fiten,
P.; Van Aelst, T.; Van Damme, J.; Opdenakker, G.
#journal Biochem. Biophys. Res. Commun. (1997) 231:726-730
#title Human monocyte chemotactic protein-2: cDNA cloning and
regulated expression of mRNA in mesenchymal cells.
#accession JC5295

##molecule_type mRNA
##residues 1-99 ##label VAN
##cross-references GB:Y10802; NID:g1924937; PID:e294088; PID:g1924938
##experimental_source bone marrow
##comment This protein belongs to the beta-chemokine family which is one of
the major HIV-suppressive factors. It plays roles in autoimmune
processes such as multiple sclerosis and rheumatoid arthritis and
in tumor biology, and contribute to the trafficking and
recruitment of the responsive cells.

GENETICS
#gene mcp-2
CLASSIFICATION #superfamily macrophage inflammatory protein
FEATURE
1-23 #domain signal sequence #status predicted #label SIG
24-99 #product monocyte chemotactic protein-2 #status
predicted #label MAT

SUMMARY
#length 99 #molecular_weight 11246 #checksum 6596

Query Match 82.5%; Score 80; DB 2; Length 99;
Best Local Similarity 58.3%; Pred. No. 8.82e-05;
Matches 7; Conservative 5; Mismatches 0; Indels 0; Gaps 0;

Db 73 EVCADPKRERWVR 84
:|||||: 1:1
OY 1 EICADPKOKWIO 12

RESULT 19
ENTRY I46871 #type complete
TITLE interleukin-8 - rabbit
ALTERNATE_NAMES neutrophil attractant/activation protein-1
ORGANISM #formal_name Oryctolagus cuniculus #common_name domestic
rabbit
DATE 14-Feb-1997 #sequence_revision 14-Feb-1997 #text_change
09-Aug-1997

ACCESSIONS
REFERENCE I46871; S13052
#authors Yoshimura, T.; Yuhki, N.
#journal J. Immunol. (1991) 146:3483-3488
#title Neutrophil attractant/activation protein-1 and monocyte
chemoattractant protein-1 in rabbit: cDNA cloning and their
expression in spleen cells.
#cross-references MUID:91225489
#accession I46871

##status preliminary; translated from GB/EMBL/DBJ
##molecule_type mRNA
##residues 1-101 ##label YOS
##cross-references GB:M57439; NID:g165552; PID:g165553

REFERENCE
#authors Beaudien, B.C.; Collins, P.D.; Jose, P.J.; Totty, N.F.;
Hsuan, J.; Waterfield, M.D.; Williams, T.J.
#journal Biochem. J. (1990) 271:797-801
#title A novel neutrophil chemoattractant generated during an
inflammatory reaction in the rabbit peritoneal cavity in
vivo. Purification, partial amino acid sequence and

##cross-references MUID:91058518
#accession S13052
##molecule_type protein
##residues 23-33, 'X', 35, 'X', 37-46, 'X', 48-49, 'I', 51-53 ##label BEA
CLASSIFICATION #superfamily beta-thromboglobulin
KEYWORDS cytokine
SUMMARY #length 101 #molecular_weight 11402 #checksum 1085

Query Match 81.4%; Score 79; DB 2; Length 101;
Best Local Similarity 66.7%; Pred. No. 1.43e-04;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 75 ELCIDPKRERWQ 86
:|||||: 1:1
OY 1 EICADPKOKWIO 12

RESULT 20
ENTRY A30209 #type complete
TITLE PDGF-inducible JE glycoprotein precursor - mouse
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE 01-Dec-1989 #sequence_revision 01-Dec-1989 #text_change
01-May-1989

ACCESSIONS
REFERENCE A30209; A44771; A30861
#authors Rollins, B.J.; Morrison, E.D.; Stiles, C.D.
#journal Proc. Natl. Acad. Sci. U.S.A. (1988) 85:3738-3742
#title Cloning and expression of JE, a gene inducible by
platelet-derived growth factor and whose product has
cytokine-like properties.
#cross-references MUID:88234501
#accession A30209

##molecule_type DNA
##residues 1-148 ##label ROL
##cross-references GB:M19681; NID:g193486; PID:g387168; GB:M19682

REFERENCE
#authors Kawahara, R.S.; Deuel, T.F.
#journal J. Biol. Chem. (1989) 264:679-682
#title Platelet-derived growth factor-inducible gene JE is a member
of a family of small inducible genes related to platelet
factor 4.
#accession A44771

##molecule_type mRNA
##residues 1-148 ##label KA2
##cross-references GB:J04467; NID:g193488; PID:g387169

GENETICS
#gene JE
#introns 26/1; 65/2
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS cytokine; glycoprotein
FEATURE 126 #binding_site carbohydrate (asn) (covalent) #status
predicted

SUMMARY
#length 148 #molecular_weight 16326 #checksum 5278

Query Match 80.4%; Score 78; DB 2; Length 148;
Best Local Similarity 66.7%; Pred. No. 2.32e-04;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 73 EVCADPKRERWQ 84
:|||||: 1:1
OY 1 EICADPKOKWIO 12

RESULT 21
ENTRY A53497 #type complete
TITLE pre-B-cell growth-stimulating factor precursor - mouse
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE 02-Jun-1994 #sequence_revision 02-Jun-1994 #text_change
10-Sep-1997

ACCESSIONS
REFERENCE A53497; I59582

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#authors      Nagasawa, T.; Kikutani, H.; Kishimoto, T.
#journal      Proc. Natl. Acad. Sci. U.S.A. (1994) 91:2305-2309
#title        Molecular cloning and structure of a pre-B-cell
#             growth-stimulating factor.
#accession    AS3497
#status       preliminary
#molecule_type mRNA
#residues     1-89 #label NAG
#cross-references GB:D1072; NID:g413905; PID:d1005177; PID:g468457
REFERENCE     159582
#authors      Tashiro, K.; Tada, H.; Hellker, R.; Shirozu, M.; Nakano, T.;
#             Honjo, T.
#journal      Science (1993) 261:600-603
#title        Signal sequence trap: a cloning strategy for secreted
#             proteins and type I membrane proteins.
#cross-references MUID:93342488
#accession    159582
#status       preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues     1-89 #label RES
#cross-references GB:L12029; NID:g393179; PID:g393180
GENETICS
#gene         SDF-1-alpha
#keywords      cytokine
SUMMARY       #length 89 #molecular-weight 10032 #checksum 4622

Query Match      79.4%; Score 77; DB 2; Length 89;
Best Local Similarity 66.7%; Pred. No. 3.76e-04;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 69 QVCIDPKWKIQ 80
OY 1 EICADPKWKIQ 12

RESULT 22
ENTRY 153416 #type complete
TITLE Interleukin-8 homolog - mouse
ORGANISM #formal_name Mus sp. #common_name mouse
DATE 02-Aug-1996 #sequence_revision 02-Aug-1996 #text_change
28-Feb-1997
ACCESSIONS 153416
REFERENCE 153416
#authors      Jiang, W.; Zhou, P.; Kahn, S.M.; Tomlita, N.; Johnson, M.D.;
#             Weinstein, I.B.
#journal      Exp. Cell Res. (1994) 215:284-293
#title        Molecular cloning of TP41, a gene whose expression is
#             repressed by the tumor promoter 12-O-tetradecanoylphorbol
#             13-acetate (TPA).
#cross-references MUID:95073497
#accession    153416
#status       preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues     1-89 #label RES
#cross-references GB:S74318; NID:g786393; PID:g786394
GENETICS
#gene         TP41
SUMMARY       #length 89 #molecular-weight 10032 #checksum 4622

Query Match      79.4%; Score 77; DB 2; Length 89;
Best Local Similarity 66.7%; Pred. No. 3.76e-04;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 69 QVCIDPKWKIQ 80
OY 1 EICADPKWKIQ 12

RESULT 23
ENTRY 181182 #type complete
TITLE cytokine - mouse
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE 02-Aug-1996 #sequence_revision 02-Aug-1996 #text_change

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#accessions    28-Feb-1997
#journal      181182
#title        Tashiro, K.; Tada, H.; Hellker, R.; Shirozu, M.; Nakano, T.;
#             Honjo, T.
#journal      Science (1993) 261:600-603
#title        Signal sequence trap: a cloning strategy for secreted
#             proteins and type I membrane proteins.
#cross-references MUID:93342488
#accession    181182
#status       preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues     1-93 #label RES
#cross-references GB:L12030; NID:g393181; PID:g393182
GENETICS
#gene         SDF-1-beta
SUMMARY       #length 93 #molecular-weight 10561 #checksum 5309

Query Match      79.4%; Score 77; DB 2; Length 93;
Best Local Similarity 66.7%; Pred. No. 3.76e-04;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 69 QVCIDPKWKIQ 80
OY 1 EICADPKWKIQ 12

RESULT 24
ENTRY G01540 #type complete
TITLE cytokine SDF-1-beta - human
ORGANISM #formal_name Homo sapiens #common_name man
DATE 21-Dec-1996 #sequence_revision 06-Jun-1997 #text_change
17-Jul-1998
ACCESSIONS G01540
REFERENCE G07697
#authors      Spottila, L.D.
#submission    submitted to the EMBL Data Library, October 1994
#accession     G01540
#status       preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues     1-93 #label SPO
#cross-references EMBL:U16752; NID:g1272194; PID:g571508
SUMMARY       #length 93 #molecular-weight 10666 #checksum 6309

Query Match      79.4%; Score 77; DB 2; Length 93;
Best Local Similarity 66.7%; Pred. No. 3.76e-04;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 69 QVCIDPKWKIQ 80
OY 1 EICADPKWKIQ 12

RESULT 25
ENTRY A32393 #type complete
TITLE macrophage inflammatory protein-1-alpha precursor - mouse
ALTERNATE_NAMES heparin-binding chemotaxis protein; l2g25b protein;
SCI/MIP-1a; SIS alpha; stem cell inhibitor/macrophage
inflammatory protein 1-alpha; T-cell activation protein
alpha; TYS
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change
08-Sep-1997
ACCESSIONS S11685; A32393; S04533; A53885; A30552; PS0303; A27596;
156104
REFERENCE S11685
#authors      Grove, M.; Lowe, S.; Graham, G.; Pragnell, I.; Plumb, M.
#journal      Nucleic Acids Res. (1990) 18:5561
#title        Sequence of the murine haemopoietic stem cell
#             inhibitor/macrophage inflammatory protein 1-alpha gene.
#cross-references MUID:91016858
#accession    S11685
#molecule_type DNA

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##residues      1-92 ##label GRO
##cross-references EMBL:X53372; NID:954062; PID:9297531
#note           the authors' translation of the nucleotide sequence
                differs at several positions from the sequence given
REFERENCE
#authors        Kwon, B.S.; Welssman, S.M.
#journal        Proc. Natl. Acad. Sci. U.S.A. (1989) 86:1963-1967
#title          cDNA sequence of two inducible T-cell genes.
#cross-references M0ID:89184547
#accession      A32393
#molecule_type mRNA
#residues       1-92 ##label KMO
#cross-references GB:J04491; NID:g201524; PID:g201525
#accession      S04533
#authors        Davatelis, G.; Tekamp-Olson, P.; Wolpe, S.D.; Hermesen, K.;
                Luedke, C.; Gallegos, C.; Colt, D.; Merryweather, J.;
                Cerami, A.
#journal        J. Exp. Med. (1988) 167:1939-1944
#title          Cloning and characterization of a cDNA for murine macrophage
                inflammatory protein (MIP), a novel monokine with
                inflammatory and chemokinetic properties.
#cross-references M0ID:88258380
#accession      S04533
#molecule_type mRNA
#residues       1-48,'E',50-90,'I',92 ##label DA2
#cross-references EMBL:X12531
#note           the authors translated the codon GAG for residue 49 as
                Asp and ATT for residue 91 as Asn
                the sequence has been corrected in reference A53885
REFERENCE
#note           A53885
#authors        Davatelis, G.; Tekamp-Olson, P.; Wolpe, S.D.; Hermesen, K.;
                Luedke, C.; Gallegos, C.; Colt, D.; Merryweather, J.;
                Cerami, A.
#journal        J. Exp. Med. (1989) 170:2189.
#contents       erratum
#accession      A53885
#molecule_type mRNA
#residues       1-92 ##label DAV
#cross-references EMBL:X12531; NID:953122; PID:953123
REFERENCE
#authors        Brown, K.D.; Zurawski, S.M.; Mosmann, T.R.; Zurawski, G.
#journal        J. Immunol. (1989) 142:679-687
#title          A family of small inducible proteins secreted by leukocytes
                are members of a new superfamily that includes leukocyte
                and fibroblast-derived inflammatory agents, growth factors,
                and indicators of various activation processes.
#cross-references M0ID:89093958
#accession      A30552
#molecule_type mRNA
#residues       1-21,'L',23-61,'A',63-92 ##label BRO
#cross-references GB:M23447; NID:9533240; PID:9533241
REFERENCE
#authors        Sherry, B.; Tekamp-Olson, P.; Gallegos, C.; Bauer, D.;
                Davatelis, G.; Wolpe, S.D.; Mastatz, F.; Colt, D.; Cerami,
                A.
#journal        J. Exp. Med. (1988) 168:2251-2259
#title          Resolution of the two components of macrophage inflammatory
                protein 1, and cloning and characterization of one of those
                components, macrophage inflammatory protein 1 beta.
#cross-references M0ID:89067830
#accession      PS0303
#molecule_type mRNA
#residues       24-33,'XX',36-54 ##label SHE
#accession      A27596
#authors        Wolpe, S.D.; Davatelis, G.; Sherry, B.; Beutler, B.; Hesse,
                D.G.; Nguyen, H.T.; Moldawer, L.L.; Nathan, C.F.; Lowry,
                S.F.; Cerami, A.
#journal        J. Exp. Med. (1988) 167:570-581
#title          Macrophages secrete a novel heparin-binding protein with
                inflammatory and neutrophil chemokinetic properties.
#cross-references M0ID:88154745
#accession      A27596
#molecule_type protein

##residues      24-33,'XX',36-42 ##label NOL
##note           26-Met, 30-Pro, and 39-Thr were also found
REFERENCE
#authors        Widmer, U.; Yang, Z.; van Deventer, S.; Manogue, K.R.;
                Sherry, B.; Cerami, A.
#journal        J. Immunol. (1991) 146:4031-4040
#title          Genomic structure of murine macrophage inflammatory
                protein-1-alpha and conservation of potential regulatory
                sequences with a human homolog, ID78.
#cross-references M0ID:91237116
#accession      I56104
#status         preliminary; translated from GB/EMBL/DBJ
#molecule_type DNA
#residues       1-92 ##label RES
#cross-references GB:M73061; NID:g199694; PID:g199695
COMMENT         This protein is a monokine.
GENETICS
#introns        23/3; 26/1; 63/2
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS        heparin binding
FEATURE
1-23            #domain signal sequence #status predicted #label SIG\
24-92           #product macrophage inflammatory protein #status
                experimental #label MAT
SUMMARY          #length 92 #molecular-weight 10345 #checksum 5009
                Query Match          76.3%; Score 74; DB 2; Length 92;
                Best local Similarity 58.3%; Pred. No. 1.57e-03;
                Matches 7; Conservative 4; Mismatches 1; Indels 0; Gaps 0;
                Db 71 QICADSKETWQ 82
                QY 1 EICADPKQKWIQ 12

RESULT          26
ENTRY           S07723 #type complete
TITLE           Immediate-early serum-responsive protein JE - rat
ALTERNATE_NAMES monocyte chemoattractant protein-1
ORGANISM        #formal name Rattus norvegicus #common name Norway rat
DATE            29-Jan-1993 #sequence_revision 29-Jan-1993 #text_change
                08-Sep-1997
ACCESSIONS      S07723; JN0128
REFERENCE
#authors        Timmers, H.T.M.; Pronk, G.J.; Bos, J.L.; van der Eb, A.J.
#journal        Nucleic Acids Res. (1990) 18:23-34
#title          Analysis of the rat JE gene promoter identifies an AP-1
                binding site essential for basal expression but not for TPA
                induction.
#cross-references M0ID:90174947
#accession      S07723
#molecule_type DNA
#residues       1-148 ##label TIM
#cross-references EMBL:X17053; NID:955530; PID:955531
REFERENCE
#authors        Yoshimura, T.; Takeya, M.; Takahashi, K.
#journal        Biochem. Biophys. Res. Commun. (1991) 174:504-509
#title          Molecular cloning of rat monocyte chemoattractant protein-1
                (MCP-1) and its expression in rat spleen cells and tumor
                cell lines.
#cross-references M0ID:91128376
#accession      JN0128
#molecule_type mRNA
#residues       1-148 ##label YOS
#cross-references GB:M57441; NID:g205333; PID:g205334
#experimental_source spleen cells
#note           The authors translated the codon GAA for residue 62 as
                Lys and GCT for residue 63 as Leu
GENETICS
#introns        26/1; 65/2
CLASSIFICATION #superfamily macrophage inflammatory protein
FEATURE
1-23            #domain signal sequence #status predicted #label SIG\

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24-148 #product immediate-early serum-responsive protein JE
SUMMARY #status predicted #label MAI #checks 4876
#length 148 #molecular-weight 16460
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Best Local Similarity 66.7%; Pred. No. 1,57e-03;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;
Db 73 EICADPNKEWQ 84
QY 1 EICADPNKEWQ 12
RESULT 27
ENTRY A37034 #type complete
TITLE Interleukin-8 precursor - human
ALTERNATE_NAMES beta-thromboglobulin-like protein; fibroblast-derived neutrophil-activating factor alpha; lung carcinoma-derived chemotaxin; lymphocyte-derived neutrophil-activating factor; monocyte-derived neutrophil chemotactic factor; monocyte-derived neutrophil-activating factor
ORGANISM #formal_name Homo sapiens #common_name man
DATE 08-Dec-1992 #sequence_revision 08-Dec-1992 #text_change 13-Sep-1998
ACCESSIONS A37034: JI0041; A32791: S37634; PI0107: A28598; A27488: A39960; A60401; A60591; S15821; S04216; A60567; A60847; S15417; S03975; I54560; I55992; I37902; S67519
REFERENCE A37034
#authors J. Immuol. (1989) 143:1366-1371
#journal J. Immunol. (1989) 143:1366-1371
#title Genomic structure of the human monocyte-derived neutrophil chemotactic factor IL-8.
#cross-references MUID:89309826
#accession A37034
#molecule_type DNA
#residues 1-99 #label MUK
#cross-references GB:M28130; NID:9186367; PID:9186368
#note The authors failed to translate the last thirty-six nucleotides of the second exon
REFERENCE JI0041
#authors Matsushima, K.; Morishita, K.; Yoshimura, T.; Lavu, S.; Kobayashi, Y.; Lew, W.; Appella, E.; Kung, H.F.; Leonard, E.J.; Oppenheim, J.J.
#journal J. Exp. Med. (1988) 167:1883-1893
#title Molecular cloning of a human monocyte-derived neutrophil chemotactic factor (MNCF) and the induction of MNCF mRNA by interleukin 1 and tumor necrosis factor.
#cross-references MUID:88258376
#accession JI0041
#molecule_type mRNA
#residues 1-99 #label MA1
#cross-references EMBL:Y00787; NID:934518; PID:934519
#note the sequence shows similarity to several platelet-derived factors, a v-src-induced protein, a growth-regulated gene product (gro), and an IFN-gamma-inducible protein
REFERENCE A32791
#authors Kowalski, J.; Denhardt, D.T.
#journal Mol. Cell. Biol. (1989) 9:1946-1957
#title Regulation of the mRNA for monocyte-derived neutrophil-activating peptide in differentiating HL60 promyelocytes.
#cross-references MUID:89313739
#accession A32791
#molecule_type mRNA
#residues 1-99 #label KOM
#cross-references GB:M26383; NID:9188627; PID:9188628
REFERENCE S37634
#authors King, C.H.; Gordon, G.S.; Konieczkowski, M.; Sedor, J.R.
#submission submitted to the EMBL Data Library, February 1992
#accession S37634
#status Preliminary
#molecule_type mRNA

#residues 1-97 #label KIN
#cross-references EMBL:211666; NID:933956; PID:933959
REFERENCE PI0107
#authors Suzuki, K.; Miyasaka, H.; Ota, H.; Yamakawa, Y.; Tagawa, M.; Kuramoto, A.; Mizuno, S.
#journal J. Exp. Med. (1989) 169:1895-1901
#title Purification and partial primary sequence of a chemotactic protein for polymorphonuclear leukocytes derived from human lung giant cell carcinoma U65C cells.
#cross-references MUID:89279141
#accession PI0107
#molecule_type protein
#residues 23-32, 'X', '35', 'X', '37-52', 'V', '54' #label SUZ
#experimental_source lung giant cell carcinoma U65C
REFERENCE A28598
#authors Gregory, H.; Young, J.; Schroeder, J.M.; Mrowietz, U.; Christophers, E.
#journal Biochem. Biophys. Res. Commun. (1988) 151:883-890
#title Structure determination of a human lymphocyte derived neutrophil activating peptide (LXNP).
#cross-references MUID:88162914
#accession A28598
#molecule_type protein
#residues 28-99 #label GRE
REFERENCE A27488
#authors Walz, A.; Peveri, P.; Aschauer, H.; Baggiolini, M.
#journal Biochem. Biophys. Res. Commun. (1987) 149:755-761
#title Purification and amino acid sequencing of NAF, a novel neutrophil-activating factor produced by monocytes.
#cross-references MUID:88106502
#accession A27488
#molecule_type protein
#residues 28-59 #label WAL
REFERENCE A39960
#authors Yoshimura, T.; Matsushima, K.; Tanaka, S.; Robinson, E.A.; Appella, E.; Oppenheim, J.J.; Leonard, E.J.
#journal Proc. Natl. Acad. Sci. U.S.A. (1987) 84:9233-9237
#title Purification of a human monocyte-derived neutrophil chemotactic factor that has peptide sequence similarity to other host defense cytokines.
#cross-references MUID:88097462
#accession A39960
#molecule_type protein
#residues 28-69 #label YOS
REFERENCE A60401
#authors Schroeder, J.M.; Sticherling, M.; Hennelcke, H.H.; Preissner, W.C.; Christophers, E.
#journal J. Immunol. (1990) 144:2223-2232
#title IL-1alpha or tumor necrosis factor-alpha stimulate release of three NAP-1/IL-8-related neutrophil chemotactic proteins in human dermal fibroblasts.
#cross-references MUID:90187866
#accession A60401
#molecule_type protein
#residues 23-32 #label SCH
#experimental_source dermal fibroblasts
#note a minor component of this material (15%) includes an additional two amino acids at the amino end
REFERENCE A60591
#authors Van Damme, J.; Decock, B.; Conings, R.; Lenaerts, J.P.; Opdenacker, G.; Billiau, A.
#journal Eur. J. Immunol. (1989) 19:1189-1194
#title The chemotactic activity for granulocytes produced by virally infected fibroblasts is identical to monocyte-derived interleukin 8.
#accession A60591
#molecule_type protein
#residues 23-33, 'X', '35', 'X', '37-42' #label VAN
REFERENCE S15827
#authors Nakagawa, H.; Hatakeyama, S.; Ikesue, A.; Miyai, H.
#journal FEBS Lett. (1991) 283:412-414
#title Generation of interleukin-8 by plasmid from AVIPR-interleukin-8, the human fibroblast-derived

Best Local Similarity 58.38; Pred. No. 2.51e-03;

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SEQUENCE EXTRACTED FROM NCB1
NCBIP:106770)

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REFERENCE

#authors I48654
Shin, H.S.; Drysdale, B.E.; Shln, M.L.; Noble, P.W.; Fisher,
S.N.; Paznekas, W.A.
#journal Mol. Cell. Biol. (1994) 14:2914-2925
#title Definition of a lipopolysaccharide-responsive element in the
5'-flanking regions of MuRantes and crg-2.
#cross-references MUID:94217689

#accession I48654

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#molecule_type DNA

#residues 1-91 #label SHI

#cross-references EMBL:X70675; NID:g475205; PID:g475206

REFERENCE

#authors Neilson, E.G.; Krensky, A.
#journal Kidney Int. (1992) 41:220-225
#title Isolation and characterization of cDNA from renal tubular
epithelium encoding murine Rantes: A small interferon from
the SCV superfamily.
#cross-references MUID:92277990

#accession I56970

#status translated from GB/EMBL/DBJ

#molecule_type mRNA

#residues 1-40, 'E', '42-91 #label NEI

#cross-references GB:M77747; NID:g200649; PID:g200650

COMMENT This chemoattractant for monocytes but not neutrophils is an
immediate-early response protein to LPS stimulation.

GENETICS

#introns 26/71: 63/2

CLASSIFICATION #superfamily macrophage inflammatory protein
chemotaxis; cytokine; immediate-early protein; inflammation

KEYWORDS #domain signal sequence #status predicted #label SIG\

FEATURE #product monocyte chemoattractant cytokine RANTES

1-23 #status predicted #label MAT

24-91 #length 91 #molecular-weight 10071 #checksum 3010

SUMMARY

#length 91 #molecular-weight 10071 #checksum 3010

Query Match 74.2%; Score 72; DB 1; Length 91;

Best Local Similarity 50.0%; Pred. No. 4.01e-03;

Matches 6; Conservative 4; Mismatches 2; Indels 0; Gaps 0;

Db 71 QVCANPEKKWVQ 82

QY 1 EICADPKQKWIQ 12

RESULT 30

ENTRY C60407 #type fragment

TITLE monocyte adherence-induced protein 5 beta - human (fragment)

ORGANISM #formal_name Homo sapiens #common_name man

DATE 06-Nov-1992 #sequence_revision 06-Nov-1992 #text_change

03-May-1996

ACCESSIONS

REFERENCE

#authors Sporn, S.A.; Eierman, D.F.; Johnson, C.E.; Morris, J.;

#journal Martin, G.; Ladner, M.; Haskill, S.

#title J. Immunol. (1990) 144:4434-4441. S.

Monocyte adherence results in selective induction of novel

genes sharing homology with mediators of inflammation and

tissue repair.

#cross-references MUID:30257367

#accession C60407

#status preliminary; not compared with conceptual translation

#molecule_type mRNA

#residues 1-50 #label SPO

CLASSIFICATION #superfamily macrophage inflammatory protein

SUMMARY #length 50 #checksum 9927

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Best Local Similarity 50.0%; Pred. No. 1.01e-02;

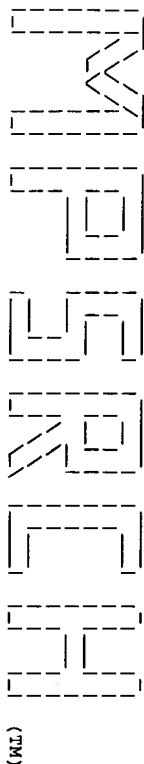
Matches 6; Conservative 4; Mismatches 2; Indels 0; Gaps 0;

Db 30 QVCADPSESQVQ 41

QY 1 EICADPKQKWIQ 12

QY 1 EICADPKQKWIQ 12

Search completed: Thu Apr 1 07:43:15 1999
Job time : 24 secs.



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Maspar_pp protein - protein database search, using Smith-Waterman algorithm
Run on: Thu Apr 1 07:41:37 1999; Maspar time 2.31 Seconds
139.459 Million cell updates/sec
Tabular output not generated.

Title: >US-08-927-939-13
Description: (1-12) from US08927939.pep
Perfect Score: 97
Sequence: 1 EICADPKOKWIO 12

Scoring table: PAM 150
Gap 15

Searched: 74019 segs, 26840295 residues

Post-Processing: Minimum Match 0%
Listing first 100 summaries

Database: swiss-prot36
1:swissprot

Statistics: Mean 25.540; Variance 32.357; scale 0.789

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description	Pred. No.
1	97.9	99	1	MCPI_HUMAN	MONOCYTE CHEMOTACTIC P	1.15e-09
2	95	97.9	101	MCPI_CANFA	MONOCYTE CHEMOTACTIC P	1.15e-09
3	94	96.9	99	MCPI_PIG	MONOCYTE CHEMOTACTIC P	2.08e-09
4	92	94.8	99	MCPI_BOVIN	MONOCYTE CHEMOTACTIC P	6.73e-09
5	91	93.8	98	MCPI_HUMAN	MONOCYTE CHEMOTACTIC P	1.21e-08
6	90	92.8	99	MCPI_HUMAN	MONOCYTE CHEMOTACTIC P	3.85e-08
7	89	91.8	125	MCPI_RABIT	MONOCYTE CHEMOTACTIC P	6.85e-08
8	88	90.7	97	EOTA_RAT	EOTAXIN PRECURSOR (EOS	6.85e-08
9	88	90.7	97	EOTA_MOUSE	EOTAXIN PRECURSOR (EOS	6.85e-08
10	88	90.7	99	MCPI_HUMAN	MONOCYTE CHEMOTACTIC P	6.85e-08
11	87	89.7	97	EOTA_HUMAN	EOTAXIN PRECURSOR (EOS	1.22e-07
12	86	88.7	99	MCPI_PIG	MONOCYTE CHEMOTACTIC P	2.16e-07
13	86	88.7	120	MCPI_CANFA	MONOCYTE CHEMOTACTIC P	2.16e-07
14	84	86.6	104	MCPI_MOUSE	MONOCYTE CHEMOTACTIC P	6.72e-07
15	82	84.5	96	EOTA_CANFA	EOTAXIN PRECURSOR (EOS	2.07e-06
16	82	84.5	101	IL8_CANFA	INTERLEUKIN-8 PRECURSO	2.07e-06
17	82	84.5	101	IL8_MOUSE	INTERLEUKIN-8 PRECURSO	2.07e-06
18	82	84.5	103	IL8_PIG	INTERLEUKIN-8 PRECURSO	2.07e-06
19	81	83.5	92	MILK_RAT	MACROPHAGE INFLAMMATO	6.33e-06
20	80	82.5	74	MCPI_HUMAN	MONOCYTE CHEMOTACTIC P	6.33e-06
21	80	82.5	99	MCPI_BOVIN	MONOCYTE CHEMOTACTIC P	6.33e-06
22	79	81.4	89	MIP4_HUMAN	MACROPHAGE INFLAMMATO	1.10e-05
23	79	81.4	101	IL8_BOVIN	INTERLEUKIN-8 PRECURSO	1.10e-05

24	79	81.4	101	IL8_RABIT	INTERLEUKIN-8 PRECURSO	1.10e-05
25	78	80.4	148	MCPI_MOUSE	MONOCYTE CHEMOTACTIC P	1.91e-05
26	77	79.4	89	SDF1_MOUSE	STROMAL CELL-DERIVED F	3.30e-05
27	77	79.4	93	SDF1_HUMAN	STROMAL CELL-DERIVED F	3.30e-05
28	74	76.3	92	MILK_MOUSE	MACROPHAGE INFLAMMATO	1.67e-04
29	74	76.3	148	MCPI_RAT	MONOCYTE CHEMOTACTIC P	1.67e-04
30	73	75.3	97	MCPI_MOUSE	MONOCYTE CHEMOTACTIC P	2.86e-04
31	73	75.3	99	IL8_HUMAN	INTERLEUKIN-8 PRECURSO	2.86e-04
32	72	74.2	101	IL8_CANFA	INTERLEUKIN-8 PRECURSO	2.86e-04
33	72	74.2	91	SISD_MOUSE	T-CELL SPECIFIC RANTES	4.86e-04
34	72	74.2	92	SISD_RAT	T-CELL SPECIFIC RANTES	4.86e-04
35	70	72.2	92	MILK_HUMAN	MACROPHAGE INFLAMMATO	1.39e-03
36	70	72.2	92	MILK_HUMAN	MACROPHAGE INFLAMMATO	1.39e-03
37	70	72.2	93	MILK_HUMAN	TONSILAR LYMPHOCYTE L	1.39e-03
38	70	72.2	96	MILK_HUMAN	MACROPHAGE INFLAMMATO	1.39e-03
39	69	71.1	101	IL8_CERTO	INTERLEUKIN-8 PRECURSO	2.35e-03
40	69	71.1	101	IL8_MOUSE	INTERLEUKIN-8 PRECURSO	2.35e-03
41	68	70.1	93	CCCL_HUMAN	CHEMOKINE CC-1 PRECURS	3.93e-03
42	68	70.1	109	CCCL_HUMAN	CHEMOKINE CC-3 PRECURS	3.93e-03
43	67	69.1	90	MILB_CHICK	MACROPHAGE INFLAMMATO	6.57e-03
44	67	69.1	92	MILB_RABIT	MACROPHAGE INFLAMMATO	6.57e-03
45	67	69.1	114	LTN_RAT	LYMPHOTACTIN PRECURSOR	1.09e-02
46	66	68.0	91	SISD_PIG	T-CELL SPECIFIC RANTES	1.09e-02
47	66	68.0	91	SISD_CANFA	T-CELL SPECIFIC RANTES	1.09e-02
48	66	68.0	91	SISD_HUMAN	T-CELL SPECIFIC RANTES	1.09e-02
49	66	68.0	114	LTN_MOUSE	LYMPHOTACTIN PRECURSOR	1.49e-02
50	63	64.9	92	MILB_RAT	EMBRYO FIBROBLAST PROT	4.31e-02
51	61	62.9	103	EMFL_CHICK	MACROPHAGE INFLAMMATO	1.31e-01
52	60	61.9	92	MILB_MOUSE	MACROPHAGE INFLAMMATO	2.12e-01
53	60	61.9	117	YJ9K_YEAST	HYPOHETICAL 13.2 KD P	2.12e-01
54	59	60.8	114	LTN_HUMAN	LYMPHOTACTIN PRECURSOR	3.42e-01
55	59	60.8	690	PNKL_NPAC	POTATIVE POLYNUCLEOTID	5.48e-01
56	58	59.8	464	YA54_HAEN	HYPOTHETICAL PROTEIN H	8.75e-01
57	57	58.8	98	MIB3_HUMAN	MACROPHAGE INFLAMMATO	8.75e-01
58	57	58.8	116	C10_MOUSE	C10 PROTEIN PRECURSOR	8.75e-01
59	57	58.8	176	YJDP_ECOLI	HYPOHETICAL 20.8 KD P	8.75e-01
60	56	57.7	731	BGAL_BACSU	BETA-GALACTOSIDASE PRE	1.39e+00
61	55	56.7	378	DHA_BACSU	ALANINE DEHYDROGENASE	2.19e+00
62	54	55.7	122	MILG_MOUSE	MACROPHAGE INFLAMMATO	3.44e+00
63	53	54.6	37	RL36_VIECH	50S RIBOSOMAL PROTEIN	5.37e+00
64	53	54.6	37	RL36_STYRP	50S RIBOSOMAL PROTEIN	5.37e+00
65	53	54.6	10	VHM3_CANFA	LEUCOCYTE ANTIGEN CD37	5.37e+00
66	53	54.6	281	CD37_MOUSE	LEUCOCYTE ANTIGEN CD37	5.37e+00
67	53	54.6	828	BGAL_BRAOL	BETA-GALACTOSIDASE PRE	5.37e+00
68	52	53.6	349	SAPD_HAEN	PEPTIDE TRANSPORT SYST	8.32e+00
69	52	53.6	831	NAPA_RHOSH	PERIPLASMIC NITRATE RE	8.32e+00
70	52	53.6	841	CSM_DROME	PROTEIN-TYROSINE PHOSP	8.32e+00
71	52	53.6	1871	SEX_HUMAN	TRANSMEMBRANE PROTEIN	8.32e+00
72	52	53.6	2179	POLG_HRY14	GENOME POLYPROTEIN (CO	8.32e+00
73	52	53.6	37	RK36_SPTOL	CHLOROPLAST 50S RIBOSO	1.28e+01
74	51	52.6	37	RK36_PEA	CHLOROPLAST 50S RIBOSO	1.28e+01
75	51	52.6	37	RK36_ORYSA	CHLOROPLAST 50S RIBOSO	1.28e+01
76	51	52.6	37	RL36_MYCTU	50S RIBOSOMAL PROTEIN	1.28e+01
77	51	52.6	92	SISF_MOUSE	SMALL INDUCIBLE CYTOKI	1.28e+01
78	51	52.6	94	TARC_HUMAN	THYMOS AND ACTIVATION	1.28e+01
79	51	52.6	166	YJDP_HAEN	HYPOHETICAL PROTEIN H	1.28e+01
80	51	52.6	532	INV2_YEAST	INVERTASE 2 PRECURSOR	1.28e+01
81	51	52.6	532	INV4_YEAST	INVERTASE 4 PRECURSOR	1.28e+01
82	51	52.6	618	XYA2_BACST	BETA-XYLIDASE PRECUR	1.28e+01
83	51	52.6	871	PCL_MOUSE	PLASMA-CELL MEMBRANE G	1.28e+01
84	51	52.6	915	PAC6_MOUSE	SERINE PROTEASE PC6 PR	1.28e+01
85	51	52.6	915	PAC6_RAT	SERINE PROTEASE PC6 PR	1.28e+01
86	50	51.5	281	CD37_HUMAN	LEUCOCYTE ANTIGEN CD37	1.96e+01
87	50	51.5	379	YJEG_PSAE	HYPOTHETICAL 41.7 KD P	1.96e+01
88	50	51.5	466	YD45_SCHPO	HYPOTHETICAL 50.5 KD P	1.96e+01
89	50	51.5	467	YJ3H_YEAST	HYPOTHETICAL 54.5 KD P	1.96e+01
90	50	51.5	505	C762_SOLME	CYCLOHORME P450 LXXVIA	1.96e+01
91	50	51.5	641	E2BE_HUMAN	TRANSLATION INITIATION	1.96e+01
92	50	51.5	659	NRTC_STYRP	INTRATE TRANSPORT ATP	1.96e+01
93	50	51.5	721	E2BE_RABIT	TRANSLATION INITIATION	1.96e+01
94	50	51.5	1675	CLH1_HUMAN	CLATHRIN HEAVY CHAIN 1	1.96e+01
95	50	51.5	1675	CLH1_BOVIN	CLATHRIN HEAVY CHAIN.	1.96e+01
96	50	51.5	1675	CLH1_RAT	CLATHRIN HEAVY CHAIN.	1.96e+01

97 49 50.5 37 1 RK36_PORPU CHLOROPLAST 50S RIBOSO 2.98e+01
 98 49 50.5 37 1 RL36_HAELN 50S RIBOSOMAL PROTEIN 2.98e+01
 99 49 50.5 188 1 DHML_PARDE METHYLAMINE DEHYDROGEN 2.98e+01
 100 49 50.5 1180 1 EX5B_ECOLI EXODEOXYRIBONUCLEASE V 2.98e+01

ALIGNMENTS

RESULT 1
 ID MCP1_HUMAN STANDARD: PRT: 99 AA.
 AC 13500;
 DT 01-JAN-1990 (REL. 13, CREATED)
 DT 01-JAN-1990 (REL. 13, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE CHEMOTACTIC
 DE AND ACTIVATING FACTOR) (MCAF) (MONOCYTE SECRETORY PROTEIN 1)
 DE (MONOCYTE CHEMOTACTIC PROTEIN 1) (HC11) (SMALL INDUCIBLE CYTOKINE
 DE A2).
 GN SCY2 OR MCP1.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUHERIA; PRIMATES.
 RN 11
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 89155862.
 RA FURUTANI Y., NOMURA H., NOTAKE M., OYAMADA Y., FUKUI T., YAMADA M.,
 RA LARSEN C.G., OPPENHEIM J.J., MATSUSHITA K.,
 RA BIOCHEM. BIOPHYS. RES. COMMUN. 159:249-255(1989).
 RN 12
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 90097880.
 RA ROLLINS B.J., STIER P., ERNST T., WONG G.G.;
 RA MOL. CELL. BIOL. 9:4687-4693(1989).
 RN 13
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 89153605.
 RA YOSHIMURA T., YUKIKI N., MOORE S.K., APPELLA E., LEHMAN M.I.,
 RA LEONARD E.J.;
 RA FEBS LETT. 244:487-493(1989).
 RN 14
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 90290466.
 RA SHY Y.J., LI Y.S., KOLATYKUDY P.E.;
 RA BIOCHEM. BIOPHYS. RES. COMMUN. 169:346-351(1990).
 RN 15
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 91207938.
 RA CHANG H.C., HSU F., FREEMAN G.J., GRIFFIN J.D., REINHHERZ E.L.;
 RA INT. IMMUNOL. 1:388-399(1989).
 RN 16
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 94150478.
 RA LI Y.S., SHY Y.J., WRIGHT J.G., VALENTE A.J., CORNHILL J.F.,
 RA KOLATYKUDY P.E.;
 RA MOL. CELL. BIOCHEM. 126:61-68(1993).
 RN 17
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 92095166.
 RA YOSHIMURA T., LEONARD E.J.;
 RA ADV. EXP. MED. BIOL. 305:47-56(1991).
 RN 18
 RP SEQUENCE OF 24-99.
 RX MEDLINE: 89184525.
 RA ROBINSON E.A., YOSHIMURA T., LEONARD E.J., TANAKA S., GRIFFIN P.R.,
 RA SHAANOWITZ J., HUNT D.F., APPELLA E.;
 RA PROC. NATL. ACAD. SCI. U.S.A. 86:1850-1854(1989).
 RN 19
 RP SEQUENCE OF 29-53 AND 82-92.
 RX MEDLINE: 90211336.
 RA DECOCK B., CONINGS R., LENAERTS J.-P., BILLAU A., VAN DAMME J.;
 RA BIOCHEM. BIOPHYS. RES. COMMUN. 167:904-909(1990).
 RN 10
 RP 3D-STRUCTURE MODELLING.

RX MEDLINE: 91312872.
 RA GROENBORN A.M., CLORE G.M.;
 RL PROTEIN ENG. 4:263-269(1991).
 RN 111
 RP X-RAY CRYSTALLOGRAPHY (1.85 ANGSTROMS).
 RX MEDLINE: 97143315.
 RA LUBKOWSKI J., BUJACZ G., DOMATILE P.J., HANDEL T.M., WLODAWER A.;
 RL NAT. STRUCT. BIOL. 4:64-69(1997).
 RN 112
 RP STRUCTURE BY NMR.
 RX MEDLINE: 96234959.
 RA HANDEL T.M., DOMATILE P.J.;
 RL BIOCHEMISTRY 35:6569-6584(1996).
 RN 113
 RP EFFECT OF DELETION OF N-TERMINAL RESIDUES.
 RX MEDLINE: 96195223.
 RA WEBER M., UGUCCIONI M., BAGGIOLINI M., CLARK-LEWIS I., DAHINDEN C.A.;
 RL J. EXP. MED. 183:681-685(1996).
 RN 114
 RP MUTAGENESIS.
 RX MEDLINE: 94253189.
 RA ZHANG Y.J., RUTLEDGE B.J., ROLLINS B.J.;
 RL J. BIOL. CHEM. 269:15918-15924(1994).
 RN 115
 RP SUBUNIT.
 RX MEDLINE: 97053697.
 RA KIM K.-S., RAJAKRISHNAM K., CLARK-LEWIS I., SYKES B.D.;
 RL FEBS LETT. 395:277-282(1996).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND BASOPHILS
 CC BUT NOT NEUTROPHILS OR EOSINOPHILS. AUGMENTS MONOCYTE ANTI-TUMOR
 CC ACTIVITY. HAS BEEN IMPLICATED IN THE PATHOGENESIS OF DISEASES
 CC CHARACTERIZED BY MONOCYTIC INFILTRATES, LIKE PSORIASIS, RHEUMATOID
 CC ARTHRITIS OR ATHEROSCLEROSIS. MAY BE INVOLVED IN THE RECRUITMENT
 CC OF MONOCYTES INTO THE ARTERIAL WALL DURING THE DISEASE PROCESS OF
 CC ATHEROSCLEROSIS.
 CC -1- SUBUNIT: MONOMER OR HOMODIMER, IN EQUILIBRIUM.
 CC -1- PTM: PROCESSING AT THE N-TERMINUS CAN REGULATE RECEPTOR AND TARGET
 CC CELL SELECTIVITY. DELETION OF THE AMINO-TERMINAL RESIDUE CONVERTS
 CC IT FROM AN ACTIVATOR OF BASOPHIL TO AN EOSINOPHIL CHEMOTACTANT.
 CC -1- SIMILARITY: BELONGS TO THE INTERCINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 CC EMBL: M31626; G386961; -;
 DR EMBL: M308165; G386961; JOINED.
 DR EMBL: M31625; G386961; JOINED.
 DR EMBL: M24545; G307163; -;
 DR EMBL: M28226; G338009; -;
 DR EMBL: X14768; G34514; -;
 DR EMBL: M37719; G487124; -;
 DR EMBL: M28225; G338007; -;
 DR EMBL: M28224; G338007; JOINED.
 DR EMBL: M28224; G338007; JOINED.
 DR EMBL: S69738; G345465; -;
 DR EMBL: S71513; G240868; -;
 DR EMBL: A17786; G641145; -;
 DR PIR: A35474; A35474.
 DR PIR: S03339; S03339.
 DR PDB: IDOK; 12-MAR-97.
 DR PDB: IDOL; 12-MAR-97.
 DR PDB: IDOM; 14-OCT-96.
 DR PDB: IDON; 14-OCT-96.
 DR PDB: IMCA; 15-OCT-94.
 DR MIM: 158105; -;
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; 3D-STRUCTURE.
 FT SIGNAL 1 23
 FT CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 1.
 FT MOD.RES 24 24 PYRROLIDONE CARBOXYLIC ACID.
 FT DISULFID 34 59
 FT DISULFID 35 75
 FT CARBOHYD 37 75
 FT VARIANT 76 76
 FT MUTAGEN 24 24 POTENTIAL.
 FT 25 32 A -> T.
 FT MISSING: LOSS OF ACTIVITY.
 FT MISSING: LOSS OF ACTIVITY.

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FT MUTAGEN 24 85 MISSING: 90% REDUCTION IN ACTIVITY.
FT MUTAGEN 24 91 MISSING: 83% REDUCTION IN ACTIVITY.
FT MUTAGEN 26 26 D->A: 90% REDUCTION IN ACTIVITY.
FT MUTAGEN 29 29 N->A: 50% REDUCTION IN ACTIVITY.
FT MUTAGEN 47 47 R->F: 95% REDUCTION IN ACTIVITY.
FT MUTAGEN 50 50 S->O: 40% REDUCTION IN ACTIVITY.
FT MUTAGEN 51 51 Y->D: LOSS OF ACTIVITY.
FT MUTAGEN 53 53 R->L: LOSS OF ACTIVITY.
FT MUTAGEN 91 91 D->L: 90% REDUCTION IN ACTIVITY.
SQ SEQUENCE 99 AA: 11025 MW; 5355B695 CRC32;

Query Match 97.9%; Score 95; DB 1; Length 99;
Best Local Similarity 91.7%; Pred. No. 1.15e-09;
Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 73 EICADPKOKWQ 84
Oy 1 EICADPKOKWQ 12

RESULT 2
ID MCP1_CANFA STANDARD; PRT; 101 AA.
AC P52203;
DT 01-OCT-1996 (REL. 34, CREATED)
DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE
DE CHEMOATTRACTANT PROTEIN-1).
GN SCYA2 OR MCP1.
OS CANIS FAMILIARIS (DOG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; CARNIVORA.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=JUGULAR VEIN ENDOTHELIAL;
RX MEDLINE: 97176620.
RA KUMAR A.G., BALLANTYNE C.M., MICHAEL L.H., KUKIELKA G.L., YOKER K.A.,
RA LINDSEY M.L., HARKINS H.K., BIRDSALL H.H., MACKAY C.R., LAROSA G.J.,
RA ROSSEN R.D., SMITH C.W., ENTMAN M.L.;
RL CIRCULATION 95:693-700(1997).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC NEUTROPHILS. IMPORTANT FACTOR IN THE COURSE OF THE INFLAMMATORY
CC REACTION TO REPERFUSION OF THE PREVIOUSLY ISCHEMIC MYOCARDIUM.
CC MAY PLAY A SIGNIFICANT ROLE IN MONOCYTE TRAFFICKING INTO THE
CC REPERFUSED MYOCARDIUM.
CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
CC -1- INDUCTION: BY TNF-ALPHA.
CC -1- TISSUE SPECIFICITY: ENDOTHELIUM OF SMALL VEINS AND INTRAPASCICULAR
CC VEINS. AND INFILTRATING LEUKOCYTES.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
CC EMBL: U29653; G1144186; -.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
DR CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
FT CHAIN 1 23 BY SIMILARITY.
FT MOD_RES 24 101 MONOCYTE CHEMOTACTIC PROTEIN 1.
FT DISULFID 34 59 PYRROLIDONE CARBOXYLIC ACID (BY
FT DISULFID 35 75 SIMILARITY).
FT SEQUENCE 101 AA: 11121 MW; A7075B14 CRC32;

Query Match 97.9%; Score 95; DB 1; Length 101;
Best Local Similarity 91.7%; Pred. No. 1.15e-09;
Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 73 EICADPKOKWQ 84
Oy 1 EICADPKOKWQ 12

RESULT 3
ID MCP1_PIG STANDARD; PRT; 99 AA.

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AC P42831.
DT 01-NOV-1995 (REL. 32, CREATED)
DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1).
GN SCYA2
OS SUS SCROFA (PIG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; ARTIODACTYLA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 94183284.
RA HOSANG K., KNOKE I., KLAUDINY J., WEMPE F., WUTTKE W., SCHEIT K.H.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 199:962-968(1994).
RN [2]
RP SEQUENCE FROM N.A.
RC TISSUE-BRAIN;
RA ZACH O.R.F.;
RL SUBMITTED (JUL-1994) TO EMBL/GENBANK/DBJ DATA BANKS.
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC NEUTROPHILS.
CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
CC EMBL: Z48479; G683717; -.
DR EMBL: X79416; G872313; -.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
DR CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
FT CHAIN 1 23 BY SIMILARITY.
FT MOD_RES 24 99 MONOCYTE CHEMOTACTIC PROTEIN 1.
FT DISULFID 34 59 PYRROLIDONE CARBOXYLIC ACID (BY
FT DISULFID 35 75 SIMILARITY).
FT SEQUENCE 99 AA: 10976 MW; ECC3AFB4 CRC32;

Query Match 96.9%; Score 94; DB 1; Length 99;
Best Local Similarity 83.3%; Pred. No. 2.08e-09;
Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 73 EICADPKOKWQ 84
Oy 1 EICADPKOKWQ 12

RESULT 4
ID MCP2_BOVIN STANDARD; PRT; 99 AA.
AC Q09141.
DT 01-NOV-1995 (REL. 32, CREATED)
DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
DE CHEMOATTRACTANT PROTEIN 2).
GN SCYA8 OR MCP2.
OS BOS TAURUS (BOVINE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; ARTIODACTYLA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 94114084.
RA WEMPE F., HANES J., SCHEIT K.H.;
RL DNA CELL BIOL. 13:1-8(1994).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES. THIS PROTEIN
CC CAN BIND HEPARIN.
CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
CC EMBL: S67954; E118856; -.
DR EMBL: S67956; G544997; -.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
DR CYTOKINE; CHEMOTAXIS; SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE.
FT SIGNAL 1 23 BY SIMILARITY.
FT CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 2.

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FT MOD_RES 24 24 PYROLIDONE CARBOXYLIC ACID (BY
FT DISULFID 34 59 SIMILARITY).
FT DISULFID 35 75 BY SIMILARITY.
SQ SEQUENCE 99 AA: 10900 MW: 98A2CD26 CRC32;
Query Match 94.8%; Score 92; DB 1; Length 99;
Best Local Similarity 75.0%; Pred. No. 6,73e+09;
Matches 9; Conservative 3; Mismatches 0; Indels 0; Gaps 0;
Db 73 DVCADPKOKWQ 84
Qy 1 EICADPKOKWQ 12
RESULT 5
ID MCP4_HUMAN STANDARD; PRT; 98 AA.
AC 099616;
DT 15-JUL-1998 (REL. 36, CREATED)
DT 15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 4 PRECURSOR (MCP-4) (MONOCYTE
DE CHEMOTACTIC PROTEIN 4) (CK-BETA10) (MCP-1).
GN SCYAL3 OR MCP4 OR NCCL.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; PRIMATES.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=HEART;
RX MEDLINE: 97113354.
RA GARCIA-ZEVEDA E.A., COMBADIERE C., ROTHENBERG M.E., SARAFI M.N.,
RA LAVIGNE F., HAMID Q., MURPHY P.M., LUSTER A.D.;
RL J. IMMUNOL. 157:5613-5626(1996).
RN [2]
RP SEQUENCE FROM N.A., AND SEQUENCE OF 17-98.
RC TISSUE=FETAL;
RX MEDLINE: 96235049.
RA UGCCIONTI M., LOETSCHER P., FORSSMANN U., DEMALD B., LI H., LIMA S.H.,
RA LI Y., KREIDER B., GAROTTA G., THELEN M., BAGGIOLINI M.;
RL J. EXP. MED. 183:2379-2384(1996).
RN [3]
RP SEQUENCE FROM N.A., AND SEQUENCE OF 22-33.
RC TISSUE=FETAL;
RX MEDLINE: 97341179.
RA BEKHOUT T.A., SARAU H.M., MOORES K., WHITE J.R., ELSHOUBAGY N.,
RA APELBAUM E., RAPE T.J., BRAUNER M., MAKANA J., FOLEY J.J.,
RA SCHMIDT D.B., IMBURGIA C., MACINDLY D., MATTHEWS J., O'DONNELL K.,
RA O'SHANNESY D., SCOTT M., GROOT P.H.E., MACPHEE C.;
RL J. BIOL. CHEM. 272:16404-16413(1997).
RN [4]
RP SEQUENCE FROM N.A.
RA DATE M., GIBSON A.;
RL SUBMITTED (AUG-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, LYMPHOCYTES,
CC BASOPHILS AND EOSINOPHILS, BUT NOT NEUTROPHILS. SIGNALS THROUGH
CC CCR2B AND CCR3 RECEPTORS. PLAYS A ROLE IN THE ACCUMULATION OF
CC LEUKOCYTES AT BOTH SITES OF ALLERGIC AND NONALLERGIC INFLAMMATION.
CC MAY BE INVOLVED IN THE RECRUITMENT OF MONOCYTES INTO THE ARTERIAL
CC WALL DURING THE DISEASE PROCESS OF ATHEROSCLEROSIS. MAY PLAY A
CC ROLE IN THE MONOCYTE ATTRACTION IN TISSUES CHRONICALLY EXPOSED TO
CC EXOGENOUS PATHOGENS.
CC -1- MASS SPECTROMETRY: MM-9314; MM_ERR=30; METHOD=MALDI; RANGE=17-98.
CC -1- MASS SPECTROMETRY: MM-8760; MM_ERR=30; METHOD=MALDI; RANGE=22-98.
CC -1- MASS SPECTROMETRY: MM-8575; MM_ERR=30; METHOD=MALDI; RANGE=24-98.
CC -1- INDUCTION: BY INTERLEUKIN-1 AND TNF-ALPHA.
CC -1- TISSUE SPECIFICITY: WIDELY EXPRESSED. FOUND IN SMALL INTESTINE,
CC THYMUS, COLON, LUNG, TRACHEA, STOMACH AND LYMPH NODE. LOW LEVELS
CC SEEN IN THE PULMONARY ARTERY SMOOTH MUSCLE CELLS.
CC -1- THIS PROTEIN CAN BIND HEPARIN.
CC -1- PTM: ONE MAJOR ISOFORM MCP-4, AND TWO MINOR ISOFORMS (LA)MCP-4 AND
CC (FNPGLA)MCP-4 ARE PRODUCED BY DIFFERENTIAL SIGNAL CLEAVAGE.
CC (LA)MCP-4 IS ABOUT 30 FOLD LESS ACTIVE THAN MCP-4.

CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: U46767; G1732123; -.
DR EMBL: AC002482; G2340091; -.
DR MIM: 601391; -.
DR PROSITE: PS00472; SMALL CYTOKINES CC: 1.
CC CYTOKINE; CHEMOTAXIS; SIGNAL; GLYCOPROTEIN; INFLAMMATORY RESPONSE.
FT SIGNAL 1 23
FT CHAIN 1 23
FT MOD_RES 24 98 MONOCYTE CHEMOTACTIC PROTEIN 4.
FT DISULFID 24 24 PYROLIDONE CARBOXYLIC ACID.
FT DISULFID 34 58 BY SIMILARITY.
FT DISULFID 35 74 BY SIMILARITY.
FT CARBOHYD 29 29 POTENTIAL.
SQ SEQUENCE 98 AA: 10986 MW: DF52FE6C CRC32;
Query Match 93.8%; Score 91; DB 1; Length 98;
Best Local Similarity 83.3%; Pred. No. 1,21e+08;
Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
Db 72 EICADPKOKWQ 83
Qy 1 EICADPKOKWQ 12
RESULT 6
ID MCP4_BOVIN STANDARD; PRT; 99 AA.
AC P28291;
DT 01-DEC-1992 (REL. 24, CREATED)
DT 01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
DT 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1A PRECURSOR (MCP-1A) (MCP-1) (ACIDIC
DE SEMINAL FLUID PROTEIN).
OS BOS TAURUS (BOVINE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; ARTIODACTYLA.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=SEMINAL PLASMA;
RX MEDLINE: 92181448.
RA WEMPE F., EINSPIERER R., SCHEIT K.H.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 183:232-237(1992).
RN [3]
RP SEQUENCE FROM N.A.
RX MEDLINE: 94338337.
RA WEMPE F., KOHLMANN J.K., SCHEIT K.H.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 202:1272-1279(1994).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC NEUTROPHILS.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: U32659; G624594; -.
DR EMBL: M84602; G163395; -.
DR PIR: A39296; A39296.
DR PIR: JC2336; JC2336.
DR HSSP: P13500; LMCA.
DR PROSITE: PS00472; SMALL CYTOKINES CC: 1.
CC CYTOKINE; CHEMOTAXIS; SIGNAL.
FT SIGNAL 1 23
FT CHAIN 1 23
FT MOD_RES 24 99 MONOCYTE CHEMOTACTIC PROTEIN 1A.
FT DISULFID 24 24 PYROLIDONE CARBOXYLIC ACID (BY
FT DISULFID 34 59 SIMILARITY).
FT DISULFID 35 75 BY SIMILARITY.
SQ SEQUENCE 99 AA: 11114 MW: C8F5821D CRC32;
Query Match 92.8%; Score 90; DB 1; Length 99;
Best Local Similarity 83.3%; Pred. No. 2,16e+08;

Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 73 EICADPPKRWQ 84
|:|||||:|
Qy 1 EICADPPKRWQ 12

RESULT 7
ID MCL1_RABIT STANDARD; PRT; 125 AA.
AC P28292;
DT 01-DEC-1992 (REL. 24, CREATED)
DT 01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
DE 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1).
GN SCY1.
OS ORCOTOLAGUS CUNICULUS (RABBIT).
OC EUKARYOTA; METAFOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
RN EUTHERIA; LAGOMORPHA.
[1]
RP SEQUENCE FROM N.A.
RC STRAIN-NEW ZEALAND WHITE; TISSUE-SPLEEN;
RX MEDLINE; 91225489.
RA YOSHIMURA T., YUHKI N.;
RT J. IMMUNOL. 146:3483-3488(1991).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC NEUTROPHILS.
CC -1- SUBUNIT: MONOMER OR HOMODIMER, IN EQUILIBRIUM (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
DR EMBL: M57440; G165470; -.
DR HSSP: P13500; IMCA.
DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
FT SIGNAL 1 23
FT CHAIN 24 125
FT MOD_RES 24 24
FT DISULFID 34 59
FT DISULFID 35 75
FT CARBOHYD 40 40
FT CARBOHYD 55 55
FT CARBOHYD 112 112
SQ SEQUENCE 125 AA; 13776 MW; FBAC9D27 CRC32;

Query Match 91.8%; Score 89; DB 1; Length 125;
Best Local Similarity 90.9%; Pred. No. 3.85e-08;
Matches 10; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 74 ICADPPKRWQ 84
|:|||||:|
Qy 2 ICADPPKRWQ 12

RESULT 8
ID POTA_RAT STANDARD; PRT; 97 AA.
AC P97345; C08780;
DT 15-JUL-1998 (REL. 36, CREATED)
DT 15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
DE 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
OS RATUS NORVEGICUS (RAT).
OC EUKARYOTA; METAFOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
RN EUTHERIA; RODENTIA.
[1]
RP SEQUENCE FROM N.A.
RA WILLIAMS C.M., NEWTON D.J., WILSON S.A., COLEMAN J.C.,
RA FLANAGAN B.F.;
RN SUBMITTED (DEC-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
[2]
RP SEQUENCE FROM N.A.
RC TISSUE-LUNG;
RA ISHII Y.;
RT SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.

CC -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
CC DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT
CC FEATURE OF ALLERGIC INFLAMMATORY REACTIONS (BY SIMILARITY).
CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
CC -1- PTM: O-GLYCOSYLATED (PROBABLE).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
DR EMBL: Y08358; E274141; -.
DR EMBL: Y06637; G2098785; -.
DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
KW INFLAMMATORY RESPONSE
FT SIGNAL 1 23
FT CHAIN 24 97
FT DISULFID 32 57
FT DISULFID 33 73
FT CARBOHYD 94 94
FT CONFLICT 3 3
SQ SEQUENCE 97 AA; 10851 MW; 05B4ED45 CRC32;

Query Match 90.7%; Score 88; DB 1; Length 97;
Best Local Similarity 83.3%; Pred. No. 6.85e-08;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 71 EICADPPKRWQ 82
|:|||||:|
Qy 1 EICADPPKRWQ 12

RESULT 9
ID EOTA_MOUSE STANDARD; PRT; 97 AA.
AC P48296;
DT 01-FEB-1996 (REL. 33, CREATED)
DT 01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
DE 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
GN MUS MUSCULUS (MOUSE).
OS EUKARYOTA; METAFOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
[1]
RP SEQUENCE FROM N.A.
RC TISSUE-LUNG;
RX MEDLINE; 96004658.
RA ROTHENBERG M.E., LUSTER A.D., LEDER P.;
RA PROC. NATL. ACAD. SCI. U.S.A. 92:8960-8964(1995).
RN [2]
RP SEQUENCE FROM N.A.
RC STRAIN-C57BL/6J; TISSUE-LUNG;
RX MEDLINE; 96158746.
RA GONZALO J.-A., JIA G.-O., AGUIRRE V., FRIEND D., COYLE A.J.,
RA JENKINS N.A., LIN G.-S., KATZ H., LICHTMAN A., COPELAND N.G., KOPE M.,
RA GUTIERREZ-RAMOS J.-C.;
RT IMMUNITY 4:1-14(1996).
CC -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
CC DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS (A PROMINENT
CC FEATURE OF ALLERGIC INFLAMMATORY REACTIONS), BUT NOT
CC LYMPHOCYTES, MACROPHAGES OR NEUTROPHILS.
CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
CC -1- TISSUE SPECIFICITY: EXPRESSED CONSTITUTIVELY IN THE THYMUS.
CC EXPRESSION INDUCIBLE IN THE LUNG (TYPE I ALVEOLAR EPITHELIAL
CC CELLS), INTESTINE, HEART, SPLEEN, KIDNEY.
CC -1- INDUCTION: BY INTERFERON-GAMMA AND LIPOPOLYSACCHARIDE (LPS).
CC -1- PTM: O-GLYCOSYLATED (PROBABLE).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
DR EMBL: U26426; G995911; -.
DR EMBL: U40672; G111937; -.
DR MGI: 103576; SCY11.
DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
KW INFLAMMATORY RESPONSE.
FT SIGNAL 1 23
FT SIGNAL 1 23

FT CHAIN 24 97 EOTAXIN.
 FT DISULFID 32 57 BY SIMILARITY.
 FT DISULFID 33 73 BY SIMILARITY.
 SQ SEQUENCE 97 AA; 10893 MW; F85A96BC CRC32;
 Query Match 90.7%; Score 88; DB 1; Length 97;
 Best Local Similarity 83.3%; Pred. No. 6.85e-08;
 Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 71 EICADPKKRWQ 82
 1 EICADPKRWQ 12

RESULT 10
 ID MCP3_HUMAN STANDARD; PRT; 99 AA.
 AC P80098;
 DT 01-DEC-1992 (REL. 24, CREATED)
 DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 3 PRECURSOR (MCP-3) (MONOCYTE
 DE CHEMOTACTIC PROTEIN 3) (NC28).
 GN SCY7 OR MCP3.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A.; AND SEQUENCE OF 31-67 AND 71-99.
 RX MEDLINE; 93213290.
 RA ODENAKKE G., FROYEN G., FITEN P., PROOST P., VAN DAMME J.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 191:535-542(1993).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 94375065.
 RA ODENAKKE G., FITEN P., NYS G., FROYEN G., VAN ROY N., SPELLEMAN F.,
 RA LAURENS G., VAN DAMME J.;
 RL GENOMICS 21:403-408(1994).
 RN [3]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 93305913.
 RA MINTY A., CHALON P., GUILLEMOT J.C., KAGHAD M., LIAUZUN P.,
 RA MAGAÏN M., MILOUX B., MINTY C., RAMOND P., VITA N., LUPKER J.,
 RA SHIRE D., FERRARA P., CAPUT D.;
 RL EUR. CYTOKINE NETW. 4:99-110(1993).
 RN [4]
 RP SEQUENCE OF 30-99.
 RC TISSUE-OSTEOSARCOMA;
 RX MEDLINE; 92308855.
 RA VAN DAMME J., PROOST P., LENAERTS J.-P., ODENAKKE G.;
 RL J. EXP. MED. 176:59-65(1992).
 RN [5]
 RP STRUCTURE BY NMR, AND SUBUNIT.
 RX MEDLINE; 97053697.
 RA KIM K.-S., RAJATHANAM K., CLARK-LEWIS I., SYKES B.D.;
 RL FEBS LETT. 395:277-282(1996).
 RN [6]
 RP STRUCTURE BY NMR.
 RX MEDLINE; 97263733.
 RA MEUNIER S., BERNASSAU J.-M., GUILLEMOT J.-C., FERRARA P., DARBON H.;
 RL BIOCHEMISTRY 36:4412-4422(1997).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND
 CC EOSINOPHILS, BUT NOT NEUTROPHILS. AUGMENTS MONOCYTE ANTI-TUMOR
 CC ACTIVITY. ALSO INDUCES THE RELEASE OF GELATINASE B. THIS PROTEIN
 CC CAN BIND HEPARIN.
 CC -1- SUBUNIT: MONOMER.
 CC -1- PTM: O-GLYCOSYLATED.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 CC EMBL; X72308; G313708; ALT_INIT.
 CC EMBL; X72309; -; NOT_ANNOTATED_CDS.
 CC EMBL; X71087; G288398; ALT_INIT.
 CC EMBL; X71087; G288397; ALT_INIT.

DR PIR; JCI478; JCI478.
 DR PIR; S32222; S32222.
 DR PIR; A54678; A54678.
 DR PDB; INCV; 15-OCT-97.
 DR MIM; 158106; -;
 DR PROSITE; P500472; SMALL CYTOKINES CC; 1.
 KW CYTOKINE, CHEMOTACTIC, HEPARIN-BINDING, GLYCOPROTEIN, SIGNAL;
 KW INFLAMMATORY RESPONSE; 3D-STRUCTURE.
 FT CHAIN 24 99
 FT MOD.RES 24 24 MONOCYTE CHEMOTACTIC PROTEIN 3.
 FT DISULFID 34 59 PYROLIDONE CARBOXYLIC ACID.
 FT DISULFID 35 75 BY SIMILARITY.
 FT CARBOHYD 29 29
 FT CONFLICT 30 30
 FT CONFLICT 68 70 T->K (IN REF. 4).
 SQ SEQUENCE 99 AA; 11200 MW; 7502E19C CRC32;

Query Match 90.7%; Score 88; DB 1; Length 99;
 Best Local Similarity 83.3%; Pred. No. 6.85e-08;
 Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 73 EICADPKRWQ 84
 1 EICADPKRWQ 12

RESULT 11
 ID EOTA_HUMAN STANDARD; PRT; 97 AA.
 AC P51671; P50877; Q92490; Q92491;
 DT 01-OCT-1996 (REL. 34, CREATED)
 DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
 DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
 DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
 GN SCY11.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 96181758.
 RA GARCIA-ZEPEDA E.A., ROTHENBERG M.E., OWNEY T.R., LEDER P.,
 RA LUSTER A.D.;
 RL NAT. MED. 2:449-456(1996).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 96189337.
 RA PONATH P.D., QIN S., RINGLER D.J., CLARK-LEWIS I., WANG J., KASSAM N.,
 RA SMITH H., SHI X., GONZALO J.A., NEWMAN W., GUTIERREZ-RAMOS J.C.,
 RA MACKAY C.R.;
 RL J. CLIN. INVEST. 97:604-612(1996).
 RN [3]
 RP SEQUENCE FROM N.A.
 RC TISSUE-SMALL INTESTINE;
 RX MEDLINE; 96205964.
 RA KITAHARA M., NAKAJIMA T., IMAI T., HARADA S., COMBADIÈRE C.,
 RA TIFRANY H.L., MURPHY P.M., YOSHIE O.;
 RL J. BIOL. CHEM. 271:725-730(1996).
 RN [4]
 RP SEQUENCE FROM N.A.; SEQUENCE OF 60-65 AND 75-88, AND VARIANTS.
 RC TISSUE-FORSKIN;
 RX MEDLINE; 96374440.
 RA BARTELS J., SCHLUTTER C., RICHTER E., NOSO N., KULKE R.,
 RA CHRISTOPHERS E., SCHROEDER J.M.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 225:1045-1051(1996).
 RN [5]
 RP SEQUENCE FROM N.A.
 RC TISSUE-PLACENTA;
 RX MEDLINE; 97312708.
 RA GARCIA-ZEPEDA E.A., ROTHENBERG M.E., WEREMOWICZ S., SARAFI M.N.,
 RA MORTON C.C., LUSTER A.D.;
 RL GENOMICS 41:471-476(1997).
 RN [6]

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RP SEQUENCE FROM N.A.
RC TISSUE-LUNG;
RX MEDLINE; 97445071.
RA HEIN H., SCHLEUTER C., KULKE R., CHRISTOPHERS E., SCHROEDER J.M.,
RA BARTELS J.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 237:537-542(1997).
CC -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
CC DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT
CC FEATURE OF ALLERGIC INFLAMMATORY REACTIONS.
CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
CC -1- PTM: O-GLYCOSYLATED (PROBABLY).
CC -1- INDUCTION: BY TNF-ALPHA, IL-1-ALPHA AND INTERFERON GAMMA.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL; U46573; G1280141; -.
DR EMBL; U34780; G1185440; -.
DR EMBL; D49372; G1552241; -.
DR EMBL; 269291; E221070; -.
DR EMBL; 275668; E251275; -.
DR EMBL; 275669; E251258; -.
DR EMBL; U46572; G2088509; -.
DR EMBL; 292709; E329504; -.
DR MIM; 601156; -.
DR PROSITE; PS00472; SMALL CYTOKINES CC; 1.
KM EOSINOPHIL CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
KM INFLAMMATORY RESPONSE; POLYMORPHISM.
FT SIGNAL 1 23
FT CHAIN 24 97
FT DISULFID 32 57
FT DISULFID 33 73
FT VARIANT 7 7
FT VARIANT 23 23
FT VARIANT 51 51
FT VARIANT 79 79
SQ SEQUENCE 97 AA; 10732 MW; 6C0F3D98 CRC32;

Query Match
Best Local Similarity 89.7%; Score 87; DB 1; Length 97;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 71 DICADPRKRWQ 82
QY 1 EICADPRKRWQ 12

RESULT 12
ID MCP2_PIG STANDARD; PRT; 99 AA.
AC P49873;
DT 01-OCT-1996 (REL. 34, CREATED)
DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
DE CHEMOTACTIC PROTEIN 2).
GN SCYA8 OR MCP2.
OS SUS SCROFA (PIG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; ARTIODACTYLA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE; 95091716.
RA HOSANG K.K., KNOKE I.I., KLAUDINY J.J., WEMPE F.F., WUTTKE W.W.,
RA SCHEIT K.K.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 205:148-153(1994).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES. THIS PROTEIN
CC CAN BIND HEPARIN.
CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL; Z48480; G683719; -.
DR PROSITE; PS00472; SMALL CYTOKINES CC; 1.
KM CYTOKINE; CHEMOTAXIS; SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE.
FT SIGNAL 1 23
FT CHAIN 24 99
SQ SEQUENCE FROM N.A.

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FT MOD_RES 24 24
FT DISULFID 34 59
FT DISULFID 35 75
SQ SEQUENCE 99 AA; 10903 MW; B7620BCF CRC32;

Query Match
Best Local Similarity 88.7%; Score 86; DB 1; Length 99;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 73 EVCADPRKRWQ 84
QY 1 EICADPRKRWQ 12

RESULT 13
ID MCP1_CAVPO STANDARD; PRT; 120 AA.
AC Q08782;
DT 01-NOV-1995 (REL. 32, CREATED)
DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE
DE CHEMOTACTIC PROTEIN-1).
GN SCYA2 OR MCP1.
OS CAVIA PORCELLUS (GUINEA PIG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RX STRAIN-2; TISSUE-SPLEEN;
RX MEDLINE; 93267104.
RA YOSHIMURA T.;
RL J. IMMUNOL. 150:5025-5032(1993).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC NEUTROPHILS.
CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL; L04985; G349821; -.
DR PROSITE; PS00472; SMALL CYTOKINES CC; 1.
KM CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
FT SIGNAL 1 23
FT CHAIN 24 120
FT MOD_RES 24 24
FT DISULFID 33 57
FT DISULFID 34 73
FT CARBOHYD 97 97
SQ SEQUENCE 120 AA; 13741 MW; 22FAD257 CRC32;

Query Match
Best Local Similarity 88.7%; Score 86; DB 1; Length 120;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 71 EVCADPRKRWQ 82
QY 1 EICADPRKRWQ 12

RESULT 14
ID MCP5_MOUSE STANDARD; PRT; 104 AA.
AC Q62401;
DT 01-NOV-1997 (REL. 35, CREATED)
DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 5 PRECURSOR (MCP-5) (MCP-1 RELATED
DE CHEMOKINE).
GN SCYA2 OR MCP5.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.

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RA MEDLINE: 97079149.
RA JIA G.-Q., GONZALO J.A., LLOYD C., KREMER L., LU L., MARTINEZ A.C.,
RA WERSHIL B.K., GUTIERREZ-RAMOS J.C.;
RA J. EXP. MED. 184:1939-1951(1996).
[2]
RN SEQUENCE FROM N.A.
RX MEDLINE: 97149438.
RA SARAFI M.N., GARCIA-ZEPEDA E.A., MACLEAN J.A., CHANO I.F.,
RA LUSTER A.D.;
RA J. EXP. MED. 185:99-109(1997).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS EOSINOPHILS, MONOCYTES,
AND LYMPHOCYTES BUT NOT NEUTROPHILS. POTENT MONOCYTE ACTIVE
CHEMOKINE THAT SIGNALS THROUGH CCR2. INVOLVED IN ALLERGIC
INFLAMMATION AND THE HOST RESPONSE TO PATHOGENS AND MAY PLAY A
PIVOTAL ROLE DURING EARLY STAGES OF ALLERGIC LUNG INFLAMMATION.
CC -1- SUBUNIT: HOMODIMER (BY SIMILARITY).
CC -1- TISSUE SPECIFICITY: PREDOMINANTLY EXPRESSED IN THE LYMPH NODES AND
THYMUS. ALSO FOUND IN THE SALIVARY GLANDS CONTAINING LYMPH NODES,
BREAST, HEART, LUNG, BRAIN, SMALL INTESTINE, KIDNEY AND COLON.
CC -1- INDUCTION: BY IFN-GAMMA AND LIPOPOLYSACCHARIDE (LPS).
CC -1- SIMILARITY: BELONGS TO THE INTERCINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
DR EMBL: U50712; G147582; -.
DR EMBL: U66670; G1881583; -.
DR MGI: 108224; SCVAL2.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
DR CYTOKINE: CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
KW SIGNAL 1 22
FT CHAIN 23 104
FT DISULFID 33 58
FT DISULFID 34 74
SQ SEQUENCE 104 AA; 11659 MM; 08FA6C35 CRC32;
Query Match 86.6%; Score 84; DB 1; Length 104;
Best Local Similarity 81.8%; Pred. No. 6,72e-07;
Matches 9; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
Db 72 EICADPKKRW 82
QY 1 EICADPKRWI 11
RESULT 15
ID EOTA_CANPO STANDARD; PRT; 96 AA.
AC P80325;
DT 01-JUN-1994 (REL. 29, CREATED)
DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
GN SCVAL1.
OS CAVIA PORCELLUS (GUINEA PIG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
RN [1]
RN SEQUENCE FROM N.A.
RN TISSUE=LUNG;
RA MEDLINE: 95173589.
RA ROTHENBERG M.E., LUSTER A.D., LILLY C.M., DRAZEN J.M., LEDER P.;
RA J. EXP. MED. 181:1211-1216(1995).
[2]
RN SEQUENCE FROM N.A.
RX MEDLINE: 95091818.
RA JOSE P.J., ADCOCK I.M., GRIFFITHS-JOHNSON D.A., BERKMAN N.,
RA WELLS T.C., WILLIAMS T.J., POWER C.A.;
RA BIOCHEM. BIOPHYS. RES. COMMUN. 205:788-794(1994).
[3]
RN SEQUENCE OF 24-96.
RN STRAIN=HARTLEY; TISSUE=LUNG;
RX MEDLINE: 94157409.
RA JOSE P.J., GRIFFITHS-JOHNSON D.A., COLLINS P.D., WALSH D.T.,
RA MOOBLER R., TOTTY N.F., TRUONG O., HSUAN J.J., WILLIAMS T.J.;
RA J. EXP. MED. 179:881-887(1994).
CC -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN

CC DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT
CC FEATURE OF ALLERGIC INFLAMMATORY REACTIONS.
CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
CC -1- TISSUE SPECIFICITY: LUNG.
CC -1- PTM: O-GLYCOSYLATED (PROBABLE).
CC -1- SIMILARITY: BELONGS TO THE INTERCINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
DR EMBL: U18941; G687656; -.
DR EMBL: X77603; G602552; -.
DR HSSP: P13500; IMCA.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
KW INFLAMMATORY RESPONSE.
FT SIGNAL 1 23
FT CHAIN 24 96
FT DISULFID 31 56
FT DISULFID 32 72
FT CARBOHYD 93 93
FT CONFLICT 88 88
SQ SEQUENCE 96 AA; 10753 MM; DD28CTES CRC32;
Query Match 84.5%; Score 82; DB 1; Length 96;
Best Local Similarity 81.8%; Pred. No. 2,07e-06;
Matches 9; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
Db 71 ICADPKKRWQ 81
QY 2 ICADPKRWIQ 12
RESULT 16
ID IL8_CANPA STANDARD; PRT; 101 AA.
AC P41324;
DT 01-FEB-1995 (REL. 31, CREATED)
DT 01-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE)
DT 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
DE INTERLEUKIN-8 PRECURSOR (IL-8).
GN IL8.
OS CANIS FAMILIARIS (DOG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; CARNIVORA.
RN [1]
RN SEQUENCE FROM N.A.
RX MEDLINE: 94010328.
RA ISHIKAWA J., SUZUKI S., HOTTA K., HIROTA Y., MIZUNO S., SUZUKI K.;
RN GENE 131:305-306(1993).
[2]
RN SEQUENCE FROM N.A.
RX MEDLINE: 95127913.
RA MATSUMOTO Y., MOHAMED A., ONODERA T., KATO H., OHASHI T.,
RA GOITSUWA R., TSUJIMOTO H., HASEGAWA A., FURUSAWA S., YOSHIMURA K.,
RA ISHIKAWA J., HOTTA K., SUZUKI K., HIROTA Y.;
RA CYTOKINE 6:455-461(1994).
[3]
RN SEQUENCE FROM N.A.
RN STRAIN=MONGREL; TISSUE=JUGULAR VEIN;
RX MEDLINE: 95114148.
RA KUKIELKA G.L., SMITH W.C., LAROSA G.J., MANNING A.M.,
RA MENDOZA L.H., DALY T.J., HUGHES B.J., YOEKER K.A., HAWKINS H.K.,
RA MICHAEL L.H., ROT A., ENTMAN M.L.;
RA J. CLIN. INVEST. 95:89-103(1994).
CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
RESPONSE TO AN INFLAMMATORY STIMULUS.
CC -1- SUBUNIT: HOMODIMER.
CC -1- SIMILARITY: BELONGS TO THE INTERCINE ALPHA FAMILY (SMALL CYTOKINE
C-X-C) (CHEMOKINE CXCL).
DR EMBL: D28772; G517100; -.
DR EMBL: D14285; G475152; -.
DR EMBL: U10308; G607814; -.
DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; 1.

KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
 FT SIGNAL 1 22 BY SIMILARITY.
 FT CHAIN 23 101 INTERLEUKIN-8.
 FT DISULFID 34 61 BY SIMILARITY.
 FT DISULFID 36 77 BY SIMILARITY.
 SQ SEQUENCE 101 AA; 11280 MW; 7C49D65D CRC32;

Query Match 84.5%; Score 82; DB 1; Length 101;
 Best Local Similarity 66.7%; Pred. No. 2.07e-06;
 Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

DB 75 EYCLDPKRWQ 86
 1:1111111111
 1 EICADPKRWQ 12

RESULT 17
 ID IL8 SHEEP STANDARD; PRT; 101 AA.
 AC P36925;
 DT 01-JUN-1994 (REL. 29, CREATED)
 DT 01-JUN-1994 (REL. 29, LAST SEQUENCE UPDATE)
 DT 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
 DE INTERLEUKIN-8 PRECURSOR (IL-8).
 GN IL8.
 OS OVIS ARIES (SHEEP).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; ARTIODACTYLA.
 RN (1)
 RN SEQUENCE FROM N.A.
 RX MEDLINE: 95121931.
 RA LEGASTROIS I. GREENLAND T., ARNAUD P., MORNEJX J.F., CORDIER G.;
 RL GENE 150:367-369(1994).
 RN (2)
 RN SEQUENCE FROM N.A.
 RX MEDLINE: 95137691.
 RA SEOM H.F., YOSHIMURA T., WOOD P.R., COLDITZ I.G.;
 RL IMMUNOL. CELL BIOL. 72:398-405(1994).
 CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
 CC BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
 CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
 CC RESPONSE TO AN INFLAMMATORY STIMULUS.
 CC -1- SUBUNIT: HOMODIMER.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
 CC C-X-C) (CHEMOKINE CXC).
 CC EMBL: X78306; G463234; -.
 DR EMBL: S74436; G786591; -.
 DR PIR: S42496; S42496.
 DR HSSP: P10145; 3IL8.
 DR PROSITE: PS00471; SMALL CYTOKINES_CXC; 1.
 KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
 FT SIGNAL 1 22 BY SIMILARITY.
 FT CHAIN 23 101 INTERLEUKIN-8.
 FT DISULFID 34 61 BY SIMILARITY.
 FT DISULFID 36 77 BY SIMILARITY.
 SQ SEQUENCE 101 AA; 11292 MW; 5A574527 CRC32;

Query Match 84.5%; Score 82; DB 1; Length 101;
 Best Local Similarity 66.7%; Pred. No. 2.07e-06;
 Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

DB 75 EYCLDPKRWQ 86
 1:1111111111
 1 EICADPKRWQ 12

RESULT 18
 ID IL8 SHEEP STANDARD; PRT; 103 AA.
 AC P26894; P22951;
 DT 01-AUG-1991 (REL. 19, CREATED)
 DT 01-AUG-1992 (REL. 23, LAST SEQUENCE UPDATE)
 DT 01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
 DE INTERLEUKIN-8 PRECURSOR (IL-8) (ALVEOLAR MACROPHAGE CHEMOTACTIC FACTOR
 DE I) (AMCF-1).

GN IL8.
 OS SUS SCROFA (PIG).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; ARTIODACTYLA.
 RN (1)
 RN SEQUENCE FROM N.A.
 RX MEDLINE: 94103307.
 RA LIN G., PEARSON A.E., SCAMURRA R.W., ZHOU Y., BAARSCH M.J.,
 RA WEISS D.J., MURTAUGH M.P.;
 RL J. BIOL. CHEM. 269:77-85(1994).
 RN (2)
 RN SEQUENCE FROM N.A.
 RA SANANMALA M.;
 RL SUBMITTED (JUL-1991) TO EMBL/GENBANK/DDBJ DATA BANKS.
 RN (3)
 RN SEQUENCE FROM N.A., AND SEQUENCE OF 26-45.
 RC TISSUE-LUNG;
 RX MEDLINE: 93041741.
 RA GOODMAN R.B., FOSTER D.C., MATHEWS S.L., OSBORN S.G., KUIJPER J.L.,
 RA FORSTROM J.W., MARTIN T.R.;
 RL BIOCHEMISTRY 31:10483-10490(1992).
 RN (4)
 RN REVISION TO 23.
 RA GOODMAN R.B.;
 RL SUBMITTED (MAR-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.
 RN (5)
 RN SEQUENCE OF 26-45.
 RC STRAIN-YORKSHIRE;
 RX MEDLINE: 91217086.
 RA GOODMAN R.B., FORSTROM J.W., OSBORN S.G., CHI E.Y., MARTIN T.R.;
 RL J. BIOL. CHEM. 266:8455-8463(1991).
 CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
 CC BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
 CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
 CC RESPONSE TO AN INFLAMMATORY STIMULUS.
 CC -1- SUBUNIT: HOMODIMER.
 CC -1- TISSUE SPECIFICITY: ALVEOLAR MACROPHAGES.
 CC -1- INDUCTION: BY LIPOPOLYSACCHARIDE.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
 CC C-X-C) (CHEMOKINE CXC).
 CC EMBL: M86923; G164521; -.
 DR EMBL: X61151; G516197; -.
 DR EMBL: M99367; G1233612; -.
 DR PIR: A44253; A44253.
 DR PIR: A44253; A44253.
 DR HSSP: P10145; 3IL8.
 DR PROSITE: PS00471; SMALL CYTOKINES_CXC; 1.
 KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
 FT SIGNAL 1 25
 FT CHAIN 26 103 INTERLEUKIN-8.
 FT DISULFID 34 61 BY SIMILARITY.
 FT DISULFID 36 77 BY SIMILARITY.
 FT CONFLICT 33 34 RC -> CR (IN REF. 5).
 FT CONFLICT 87 87 K -> KR (IN REF. 2).
 SQ SEQUENCE 103 AA; 11633 MW; A012D59D CRC32;

Query Match 84.5%; Score 82; DB 1; Length 103;
 Best Local Similarity 66.7%; Pred. No. 2.07e-06;
 Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

DB 75 EYCLDPKRWQ 86
 1:1111111111
 1 EICADPKRWQ 12

RESULT 19
 ID M1A RAT STANDARD; PRT; 92 AA.
 AC P50229;
 DT 01-OCT-1996 (REL. 34, CREATED)
 DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
 DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
 DE MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA PRECURSOR (MIP-1-ALPHA).
 GN SC1A3 OR M1P1A.

OS RATUS NORVEGICUS (RAT).
 CC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUTHERIA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-CD-1; TISSUE-LUNG;
 RX MEDLINE; 95298037.
 RA SHI M.M., GODLESKI J.J., PAULAKUSIS J.D.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 211:289-295(1995).
 RN [2]
 RP SEQUENCE FROM N.A.
 RC STRAIN-LONG EVANS; TISSUE-LUNG;
 RX MEDLINE; 95238980
 RA SHANLEY T.P., SCHMAL H., FRIEDL H.P., JONES M.L., WARD P.A.;
 RL J. IMMUNOL. 154:4793-4802(1995).
 RN [3]
 RP SEQUENCE OF 24-57.
 RC STRAIN-WISTAR;
 RX MEDLINE; 96183056.
 RA NAKAGAWA H., SHIOTA S., TAKANO K., SHIBATA F., KATO H.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 220:945-948(1996).
 CC -1- FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES.
 CC HAS CHEMOTACTIC ACTIVITY FOR MONOCYTES, NEUTROPHILS, EOSINOPHILS,
 CC BASOPHILS, AND LYMPHOCYTES. REQUIRED FOR LUNG TNF-ALPHA
 CC PRODUCTION, NEUTROPHIL RECRUITMENT AND SUBSEQUENT LUNG INJURY AND
 CC MAY FUNCTION AS AN AUTOCRINE MEDIATOR FOR THE MACROPHAGE
 CC PRODUCTION OF TNF-ALPHA WHICH IN TURN UP-REGULATES VASCULAR
 CC ADHESION MOLECULES REQUIRED FOR NEUTROPHIL INFILUX. THIS PROTEIN
 CC BINDS HEPARIN.
 CC -1- INDUCTION: BY LIPOPOLYSACCHARIDE (LPS).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL; U22414; G790633; -;
 DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
 KM CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL; HEPARIN-BINDING.
 FT SIGNAL 1 23
 FT CHAIN 24 92
 FT DISULFID 34 57
 FT DISULFID 35 73
 FT CONFLICT 6 6
 FT CONFLICT 57 57
 FT CONFLICT C -> T (IN REF. 2).
 FT CONFLICT C -> W (IN REF. 2 AND 3).
 SQ SEQUENCE 92 AA; 10335 MW; F48CF89F CRC32;
 Query Match 83.5%; Score 81; DB 1; Length 92;
 Best Local Similarity 66.7%; Pred. No. 3,63e-06;
 Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;
 Db 71 QICADPKRETWO 82
 QY 1 EICADPKOKWIO 12
 RESULT 20
 ID MCPB BOVIN STANDARD; PRT: 74 AA.
 AC P80343;
 DT 01-FEB-1995 (REL. 31, CREATED)
 DT 01-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1B (MCP-1B) (FRAGMENT).
 OS BOS TAURUS (BOVINE)
 CC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUTHERIA; ARTIODACTYLA.
 RN [1]
 RP SEQUENCE.
 RC TISSUE-KIDNEY;
 RX MEDLINE; 95034774.
 RA PROOST P., WUYTS A., LENAERTS J.-P., VAN DAMME J.;
 RL BIOCHEMISTRY 33:13406-13412(1994).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
 CC NEUTROPHILS. AUGMENTS MONOCYTE ANTI-TUMOR ACTIVITY. ALSO INDUCES
 CC THE RELEASE OF GELATINASE B. THIS PROTEIN CAN BIND HEPARIN.
 CC -1- P.TM: THE N-TERMINAL IS BLOCKED.

CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
 KM CYTOKINE; CHEMOTAXIS; HEPARIN-BINDING.
 FT NON TER 1 1
 FT DISULFID 9 34
 FT DISULFID 10 50
 FT DISULFID 10 50
 SQ SEQUENCE 74 AA; 8360 MW; 66172F08 CRC32;
 Query Match 82.5%; Score 80; DB 1; Length 74;
 Best Local Similarity 66.7%; Pred. No. 6,33e-06;
 Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;
 Db 48 EICAEPPKXXWVO 59
 QY 1 EICADPKOKWIO 12
 RESULT 21
 ID MCP2 HUMAN STANDARD; PRT: 99 AA.
 AC P80075; P78388;
 DT 01-DEC-1992 (REL. 24, CREATED)
 DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
 DE CHEMOTACTICANT PROTEIN 2) (HC14).
 GN SCY8 OR SCYAL0 OR MCP2.
 OS HOMO SAPIENS (HUMAN).
 CC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUTHERIA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A., AND VARIANT GLN-69.
 RX MEDLINE; 97237052.
 RA VAN COILLIE E., FITEN P., NOMIYAMA H., SAKAKI Y., MIURA R., YOSHIE O.,
 RA VAN DAMME J., ODENAKKER G.;
 RL GENOMICS 40:323-331(1997).
 RN [2]
 RP SEQUENCE FROM N.A., AND VARIANT GLN-69.
 RC TISSUE-BONE MARROW;
 RX MEDLINE; 97224420.
 RA VAN COILLIE E., FROYEN F., NOMIYAMA H., MIURA R., FITEN P.,
 RA VAN AELST I., VAN DAMME J., ODENAKKER G.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 231:726-730(1997).
 RN [3]
 RP SEQUENCE OF 23-99 FROM N.A.
 RX MEDLINE; 91207938.
 RA CHANG H.C., HSU F., FREEMAN G.J., GRIFFIN J.D., REINHERZ E.L.;
 RL INT. IMMUNOL. 1:388-399(1989).
 RN [4]
 RP SEQUENCE OF 26-99.
 RC TISSUE-OSTEOSARCOMA;
 RX MEDLINE; 92308855.
 RA VAN DAMME J., PROOST P., LENAERTS J.-P., ODENAKKER G.;
 RL J. EXP. MED. 176:59-65(1992).
 RN [5]
 RP SUBUNIT.
 RX MEDLINE; 97053697.
 RA KIM K.-S., RAJARATHNAM K., CLARK-LEWIS I., SYKES B.D.;
 RL FEBS LETT. 395:277-282(1996).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, LYMPHOCYTES,
 CC BASOPHILS AND EOSINOPHILS. MAY PLAY A ROLE IN NEOPLASIA AND
 CC INFLAMMATORY HOST RESPONSES. THIS PROTEIN CAN BIND HEPARIN.
 CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM.
 CC -1- TISSUE SPECIFICITY: HIGHEST EXPRESSION FOUND IN THE SMALL
 CC INTESTINE AND PERIPHERAL BLOOD CELLS. INTERMEDIATE LEVELS SEEN IN
 CC THE HEART, PLACENTA, LUNG, SKELETAL MUSCLE, THYMS, COLON, OVARY,
 CC SPINAL CORD AND PROSTATE.
 CC -1- INDUCTION: BY INTERFERON GAMMA, MITOGENS AND INTERLEUKIN-1.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL; X99886; E279930; ALT_INIT.
 DR EMBL; Y10802; E294088; -;

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DR 'HSP: P13500: IMCA.
DR MM: 602283; -.
DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE;
KW POLYMORPHISM.
FT SIGNAL 1 23 PROBABLE.
FT CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 2.
FT MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID.
FT DISULFID 34 59 BY SIMILARITY.
FT DISULFID 35 75 BY SIMILARITY.
FT VARIANT 69 69 K->Q.
SQ SEQUENCE 99 AA; 11246 MW; 5DD5C20 CRC32;

Query Match 82.5%; Score 80; DB 1; Length 99;
Best Local Similarity 58.3%; Pred. No. 6.33e-06;
Matches 7; Conservative 5; Mismatches 0; Indels 0; Gaps 0;

Db 73 EVCAADPKRWYR 84
QY 1 EICADPKRWQ 12

RESULT 22
ID MIP4_HUMAN STANDARD; PRT; 89 AA.
AC P55774;
DT 01-NOV-1997 (REL. 35, CREATED)
DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MACROPHAGE INFLAMMATORY PROTEIN 4 PRECURSOR (MIP-4) (PULMONARY AND
DE ACTIVATION-REGULATED CHEMOKINE) (CC CHEMOKINE PARC) (ALTERNATIVE
DE ACTIVATED MACROPHAGE ASSOCIATED CC CHEMOKINE 1) (MAMC-1).
GN SCAL18 OR MIP4.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; PRIMATES.
RN [1]
RP SEQUENCE FROM N.A.
RA LI H., RUBEN S.;
RL PATENT NUMBER US5504003.
RN [2]
RP SEQUENCE FROM N.A., AND PARTIAL SEQUENCE.
RC TISSUE-AORTA, AND LUNG;
RX HITSUMA K., IMAI T., BABA M., SHOUJAI K., ISHIZUKA K.,
RA NAKAGAWA T., TSURUTA J., TAKEYA M., SAKAKI Y., TAKATSUKI K.,
RA MURA R., OPEENAKKER G., VAN DAMME J., YOSHIE O., NOMIYAMA H.;
RL J. IMMUNOL. 159:1140-1149(1997).
RN [3]
RP SEQUENCE FROM N.A.
RA KODELJA V., MUELLER C., POLITZ O., HAKIT N., ORFANOS C.E., GOERDT S.;
RL SUBMITTED (AUG-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [4]
RP DISCUSSION OF SEQUENCE.
RA MEDLINE: 97275308.
KW WELLS T.N.C., PETTSCH M.C.;
J. LEUKOC. BIOL. 61:545-550(1997).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS LYMPHOCYTES BUT NOT
CC MONOCYTES OR GRANULOCYTES. MAY BE INVOLVED IN B CELL MIGRATION
CC INTO B CELL FOLLICLES IN LYMPH NODES.
CC -1- TISSUE SPECIFICITY: EXPRESSED AT HIGH LEVELS IN THE LUNG. A LOWER
CC LEVEL EXPRESSION IS SEEN IN LYMPHOID TISSUES SUCH AS LYMPH NODES,
CC THYMUS AND APPENDIX.
CC -1- INDUCTION: BY LIPOPOLYSACCHARIDE (LPS).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
EMBL: AB000221; D1022520; -.
DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
FT SIGNAL 1 20
FT CHAIN 21 89 MACROPHAGE INFLAMMATORY PROTEIN 4.
FT DISULFID 30 54 BY SIMILARITY.
FT DISULFID 31 70 BY SIMILARITY.

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SQ SEQUENCE 89 AA; 9849 MW; 052NA3DC CRC32;

Query Match 81.4%; Score 79; DB 1; Length 89;
Best Local Similarity 66.7%; Pred. No. 1.10e-05;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 68 QICADPKRWQ 79
QY 1 EICADPKRWQ 12

RESULT 23
ID IL8_BOVIN STANDARD; PRT; 101 AA.
AC P19255;
DT 01-NOV-1997 (REL. 35, CREATED)
DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
DE INTERLEUKIN-8 PRECURSOR (IL-8).
GN IL8.
OS BOS TAURUS (BOVINE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; ARTIODACTYLA.
RN [1]
RP SEQUENCE FROM N.A.
RA MEDLINE: 96304552.
RA MORSEY M.A., POPOWYCH Y., KOWALSKI J., GERLACH G., GODSON D.,
RA CAMPOS M., BABIK L.A.;
RL MICROB. PATHOG. 20:203-212(1996).
CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
CC BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
CC RESPONSE TO AN INFLAMMATORY STIMULUS (BY SIMILARITY).
CC -1- SUBUNIT: HOMODIMER (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
CC C-X-C) (CHEMOKINE CXC).
DR EMBL; S82598; G1699354; -.
KW PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
RW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
FT SIGNAL 1 22
FT CHAIN 23 101 INTERLEUKIN-8.
FT DISULFID 34 61 BY SIMILARITY.
FT DISULFID 36 77 BY SIMILARITY.
SQ SEQUENCE 101 AA; 11291 MW; 0E39C526 CRC32;

Query Match 81.4%; Score 79; DB 1; Length 101;
Best Local Similarity 58.3%; Pred. No. 1.10e-05;
Matches 7; Conservative 4; Mismatches 1; Indels 0; Gaps 0;

Db 75 EVCINPKRWQ 86
QY 1 EICADPKRWQ 12

RESULT 24
ID IL8_RABBIT STANDARD; PRT; 101 AA.
AC P19874;
DT 01-FEB-1991 (REL. 17, CREATED)
DT 01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
DT 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
DE INTERLEUKIN-8 PRECURSOR (IL-8) (NEUTROPHIL ATTRACTANT/ACTIVATION
DE PROTEIN-1) (NAP-1) (PERMEABILITY FACTOR 1) (RP1).
GN IL8.
OS ORYCTOLAGUS CUNICULUS (RABBIT).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; LAGOMORPHA.
RN [1]
RP SEQUENCE FROM N.A.
RA STRAIN-NEW ZEALAND WHITE; TISSUE-SPLEEN;
RC MEDLINE: 91225489.
RA YOSHIMURA T., YUHKI N.;
RL J. IMMUNOL. 146:3483-3488(1991).
RN [2]
RP SEQUENCE OF 23-53.

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RC STRAIN-NEW ZEALAND WHITE; TISSUE-PERITONEAL CAVITY;
 RX MEDLINE; 91058518.
 RA BEAUBIEN B.C., COLLINS P.D., JOSE P.J., TOTTY N.F., HSUAN J.,
 RA WATERFIELD M.D., WILLIAMS T.J.;
 RL BIOCHEM. J. 271:797-801(1990).
 CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
 CC BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
 CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
 CC RESPONSE TO AN INFLAMMATORY STIMULUS.
 CC -1- SUBUNIT: HOMODIMER.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
 CC C-X-C) (CHEMOKINE CXC).
 DR EMBL: M57439; G155553; -.
 DR PIR: S13052; S13052.
 DR HSSP: P10145; 31L8.
 DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; 1.
 KM CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
 FT SIGNAL 1 22
 FT CHAIN 23 101 INTERLEUKIN-8.
 FT DISULFID 34 61 BY SIMILARITY.
 FT DISULFID 36 77 BY SIMILARITY.
 FT CONFLICT 50 50 K -> I (IN REF. 2).
 SQ SEQUENCE 101 AA; 11402 MM; CB32CC30 CRC32; 2).

Query Match 81.4%; Score 79; DB 1; Length 101;
 Best Local Similarity 66.7%; Pred. No. 1.10e-05;
 Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 75 ELCADPKREKWO 86
 Oy 1 EICADPKRKWIO 12

RESULT 25
 ID MCP1_MOUSE STANDARD; PRT; 148 AA.
 AC P10148;
 DT 01-MAR-1989 (REL. 10, CREATED)
 DT 01-MAR-1989 (REL. 10, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (PLATELET-DERIVED
 DE GROWTH FACTOR-INDUCIBLE PROTEIN JE).
 GN SCY2 OR MCP1 OR JE.
 OS MUS MUSCULUS (MOUSE).
 OS EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUKARYOTA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 89093129.
 RA KAWAHARA R.S., DEUEL T.F.;
 RL J. BIOL. CHEM. 264:679-682(1989).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 88234501.
 RA ROLLINS B.J., MORRISON E.D., STILES C.D.;
 RL PROC. NATL. ACAD. SCI. U.S.A. 85:3738-3742(1988).
 RN [3]
 RP SEQUENCE OF 26-42.
 RX MEDLINE; 91293127.
 RA VAN DAMME J., DECOCK B., BERTINI R., CONINGS R., LENAERTS J.-P.,
 RA PUT W., OPDEKARER G., MANTOVANI A.;
 RL EUR. J. BIOCHEM. 199:223-229(1991).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
 CC NEUTROPHILS.
 CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
 CC -1- INDUCTION: BY PLATELET-DERIVED GROWTH FACTOR.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-X-C) (CHEMOKINE CC).
 DR EMBL: J04467; G387169; -.
 DR EMBL: M19681; G387168; -.
 DR PIR: A30209; A30209.
 DR PIR: A30861; A30861.
 DR PIR: S16226; S16226.
 DR HSSP: P13500; IMCA.

DR MGD; MGI:98259; SCY2.
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 KM CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
 FT SIGNAL 1 23
 FT CHAIN 24 148
 FT MOD_RRS 24 24 MONOCYTE CHEMOTACTIC PROTEIN 1.
 FT DISULFID 34 59 PYRROLIDONE CARBOXYLIC ACID (BY
 FT DISULFID 35 75 SIMILARITY).
 FT CARBOHYD 126 126 BY SIMILARITY.
 SQ SEQUENCE 148 AA; 16326 MM; B572B8C CRC32; 2).

Query Match 80.4%; Score 78; DB 1; Length 148;
 Best Local Similarity 66.7%; Pred. No. 1.91e-05;
 Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 73 EVCADPKREKWO 84
 Oy 1 EICADPKRKWIO 12

RESULT 26
 ID SDF1_MOUSE STANDARD; PRT; 89 AA.
 AC P40224;
 DT 01-FEB-1995 (REL. 31, CREATED)
 DT 01-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE)
 DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
 DE STROMAL CELL-DERIVED FACTOR 1 PRECURSOR (SDF-1) (PRE-B CELL GROWTH
 DE STIMULATING FACTOR) (PBSF) (12-O-TETRADECANOYLPHORBOL 13-ACETATE
 DE REPRESSED PROTEIN 1) (TPRAL) (THYMIC LYMPHOMA CELL STIMULATING FACTOR)
 DE (TISF).
 GN SDF1.
 OS MUS MUSCULUS (MOUSE).
 OS EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUKARYOTA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 9418151.
 RA NAGASAWA T., KIKUTANI H., KISHIMOTO T.;
 RL PROC. NATL. ACAD. SCI. U.S.A. 91:2305-2309(1994).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 93342488.
 RA TASHIRO K., TADA H., HEILKER R., SHIROZU M., NAKANO T., HONJO T.;
 RL SCIENCE 261:600-603(1993).
 RN [3]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 95073497.
 RA JIANG W., ZHOU P., KAHN S.M., TOMITA N., JOHNSON M.D.,
 RA WEINSTEIN I.B.;
 RL EXP. CELL RES. 215:284-293(1994).
 RN [4]
 RP SEQUENCE FROM N.A.
 RC STRAIN-AKR/J;
 RA NOMURA M., NAKATA Y., UZAWA A., NOSE M., AKASHI M., SUZUKI G.;
 RL SUBMITTED (DEC-1994) TO EMBL/GENBANK/DBJ DATA BANKS.
 CC -1- FUNCTION: CHEMOTACTIC ACTIVE ON T-LYMPHOCYTES, MONOCYTES, BUT
 CC NOT NEUTROPHILS.
 CC -1- FUNCTION: STIMULATES THE PROLIFERATION OF BONE MARROW-DERIVED B
 CC PROGENITOR CELLS IN THE PRESENCE OF IL-7 AS WELL AS GROWTH OF THE
 CC STROMAL CELL-DEPENDENT B-CELL CLONE DB34 CELLS.
 CC -1- ALTERNATIVE PRODUCTS: TWO DIFFERENT FORMS (ALPHA AND BETA) ARE
 CC PROBABLY GENERATED BY ALTERNATIVE SPLICING.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
 CC C-X-C) (CHEMOKINE CXC).
 DR EMBL: D21072; G468457; -.
 DR EMBL: L12029; G393180; -.
 DR EMBL: L12030; G393182; -.
 DR EMBL: S74318; G786394; -.
 DR EMBL: D43804; G1304174; -.
 DR EMBL: D43805; G1304175; -.
 DR PIR: A53497; A53497.
 DR MGD; MGI:103556; SDF1.

DR PROSITE: PS00471: SMALL CYTOKINES_CXC; FALSE NEG.
KM CYTOKINE; CHEMOTAXIS; GROWTH FACTOR; SIGNAL; ALTERNATIVE SPLICING.
FT SIGNAL 1 19
FT CHAIN 20 93
FT DISULFID 30 55
FT DISULFID 32 71
FT VARSPLIC 89 89
SQ SEQUENCE 89 AA; 10032 MM; 222CAE52 CRC32;
Query Match 79.4%; Score 77; DB 1; Length 89;
Best Local Similarity 66.7%; Pred. No. 3,30e-05;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;
Db 69 QVCIDPKWKIQ 80
QY 1 EICADPKWKIQ 12
RESULT 27
ID SDF1_HUMAN STANDARD: PRT; 93 AA.
AC P48061;
DI 01-FEB-1996 (REL. 33, CREATED)
DI 01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
DI 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE STROMAL CELL-DERIVED FACTOR 1 PRECURSOR (SDF-1) (PRE-B CELL GROWTH
DE STIMULATING FACTOR) (PBSF).
GN SDF1.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; PRIMATES.
RN [1]
RP SEQUENCE FROM N.A.
RA SPOTILIA L.D.;
RL SUBMITTED (OCT-1994) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 96039262.
RA SHIROZU M., MAKANO T., INAZAWA J., TASHIRO K., TADA H.,
RA SHIMOHARA T., HONDO T.;
RL GENOMICS 28:495-500(1995).
RN [3]
RP STRUCTURE BY NMR OF 22-88.
RX MEDLINE: 98046030.
RA CRUMP M.P., GONG J.H., LOETSCHER P., RAJARATHNAM K., AMARA A.,
RA ARENZANA-SEISDEDOS F., VIRELIZIER J.L., BAGGIOLINI M., SYKES B.D.,
RA CLARK-LEWIS I.;
RL EMBO J. 16:6996-7007(1997).
CC -1- FUNCTION: CHEMOTRACTANT ACTIVE ON T-LYMPHOCYTES, MONOCYTES, BUT
CC NOT NEUTROPHILS.
CC -1- ALTERNATIVE PRODUCTS: TWO DIFFERENT FORMS (ALPHA AND BETA) ARE
CC PROBABLY GENERATED BY ALTERNATIVE SPLICING.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
CC C-X-C) (CHEMOKINE CXC).
DR EMBL: U16752; G571508; -;
DR EMBL: L36033; G1220366; -;
DR PDB: 1SDF; 28-JAN-98.
DR PDB: 2SDP; 17-JUN-98.
DR MIM: 600835; -;
DR PROSITE: PS00471; SMALL CYTOKINES_CXC; FALSE NEG.
KM CYTOKINE; CHEMOTAXIS; GROWTH FACTOR; SIGNAL; ALTERNATIVE SPLICING;
KW 3D-STRUCTURE.
FT SIGNAL 1 19
FT CHAIN 20 93
FT DISULFID 30 55
FT DISULFID 32 71
SQ SEQUENCE 93 AA; 10666 MM; 4B9911C7 CRC32;
Query Match 79.4%; Score 77; DB 1; Length 93;
Best Local Similarity 66.7%; Pred. No. 3,30e-05;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;
Db 69 QVCIDPKWKIQ 80
QY 1 EICADPKWKIQ 12

QY 1 EICADPKWKIQ 12
RESULT 28
ID M1A_MOUSE STANDARD: PRT; 92 AA.
AC P10855; P14096;
DI 01-JUL-1989 (REL. 11, CREATED)
DI 01-APR-1990 (REL. 14, LAST SEQUENCE UPDATE)
DI 01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
DE MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA PRECURSOR (MIP-1-ALPHA) (TX-5)
DE (SIS-ALPHA) (HEPATIC-BINDING CHEMOTAXIS PROTEIN) (L2G25B).
GN SCV33 OR MIP1A.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 88258380.
RA DAVATELIS G., TERAMP-OLSON P., WOJPE S.D., HERMSEN K., LUEDKE C.,
RA GALLEGOS C., COIT D., MERRYWEATHER J., CERAMI A.;
RL J. EXP. MED. 167:1939-1944(1988).
RN [2]
RP REVISIONS.
RA DAVATELIS G., TERAMP-OLSON P., WOJPE S.D., HERMSEN K., LUEDKE C.,
RA GALLEGOS C., COIT D., MERRYWEATHER J., CERAMI A.;
RL J. EXP. MED. 170:2189-2189(1989).
RN [3]
RP SEQUENCE FROM N.A.
RX MEDLINE: 89093958.
RA BROWN K.D., ZURAWSKI S.M., MOSMANN T.R., ZURAWSKI G.;
RL J. IMMUNOL. 142:679-687(1989).
RN [4]
RP SEQUENCE FROM N.A.
RC STRAIN-DBA/2J;
RX MEDLINE: 91016858.
RA GROVE M., LOWE S., GRAHAM G., PRAGNELL I., PLUMB M.;
RL NUCLEIC ACIDS RES. 18:5561-5561(1990).
RN [5]
RP SEQUENCE FROM N.A.
RX MEDLINE: 89184547.
RA KWON B.S., WEISSMAN S.M.;
RL PROC. NATL. ACAD. SCI. U.S.A. 86:1963-1967(1989).
RN [6]
RP SEQUENCE FROM N.A.
RX MEDLINE: 91237116.
RA WIDMER U., YANG Z., VAN DEVENTER S., MANOGUE K.R., SHERRY B.,
RA CERAMI A.;
RL J. IMMUNOL. 146:4031-4040(1991).
RN [7]
RP SEQUENCE OF 24-42.
RX MEDLINE: 88154745.
RA WOJPE S.D., DAVATELIS G., SHERRY B., BEUTLER B., HESSE D.G.,
RA NGUYEN H.T., MOLDAMER L.L., NATHAN C.F., LOWRY S.F., CERAMI A.;
RL J. EXP. MED. 167:570-581(1988).
CC -1- FUNCTION: MONOKINE WITH INFLAMMATORY, PYROGENIC AND CHEMOKINETIC
CC PROPERTIES. HAS A POTENT CHEMOTACTIC ACTIVITY FOR EOSINOPHILS.
CC BINDING TO A HIGH-AFFINITY RECEPTOR ACTIVATES CALCIUM RELEASE IN
CC NEUTROPHILS.
CC -1- TISSUE SPECIFICITY: EXPRESSED IN LUNG, SPLEEN, AND PANCREAS.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: M23447; G533241; -;
DR EMBL: X12531; G531231; -;
DR EMBL: X53372; G2975131; -;
DR EMBL: J04491; G201525; -;
DR EMBL: M73061; G198695; -;
DR PIR: A27596; A27596.
DR PIR: A30552; A30552.
DR PIR: A32393; A32393.
DR PIR: S04533; S04533.
DR PIR: S11685; S11685.
DR HSSP: P13236; 1HDM.
DR MGD: MGI:98260; SCY33.

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DR PROSITE: PS00472: SMALL_CYTOKINES_CC: 1.
KM CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
FT SIGNAL 1 23
FT CHAIN 24 92
FT DISULFID 34 57 MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA.
FT DISULFID 35 73 BY SIMILARITY.
FT CONFLICT 22 22 F -> L (IN REF. 3).
FT CONFLICT 62 62 V -> A (IN REF. 3).
SO SEQUENCE 92 AA: 10345 MW: 539795E CRC32;

Query Match
Best Local Similarity 58.3%; Score 74; DB 1; Length 92;
Matches 7; Conservative 4; Mismatches 1; Indels 0; Gaps 0;

Db 71 QICADSKETWQ 82
QY 1 EICADPKOKWIO 12

RESULT 29
ID MCP1_RAT STANDARD: PRT: 148 AA.
AC P14844;
DT 01-APR-1990 (REL. 14, CREATED)
DT 01-APR-1990 (REL. 14, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (IMMEDIATE-EARLY
DE SERUM-RESPONSIVE JE PROTEIN).
GN SCY2 OR JE OR MCP1.
OS EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-WAG/RID; TISSUE-KIDNEY;
RX MEDLINE: 90174947.
RA TIMMERS H.T.H.M., PRONK G.J., BOS J.L., VAN DER EB A.J.;
RL NUCLEIC ACIDS RES. 18:23-34(1990).
RN [2]
RP SEQUENCE FROM N.A.
RC MEDLINE: 91128376.
RA YOSHIMURA T., TAKEYA M., TAKAHASHI K.;
RB BIOCHEM. BIOPHYS. RES. COMMUN. 174:504-509(1991).
CC -1- SUBUNIT: MONOMER OR HOMODIMER. IN EQUILIBRIUM (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: X17053; G55531; -.
DR EMBL: M57441; G205334; -.
DR PIR: JN0128; JN0128.
DR PIR: S07723; S07723.
DR HSP: P13500; IMCA.
DR PROSITE: PS00472: SMALL_CYTOKINES_CC: 1.
KM CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
FT SIGNAL 1 23
FT CHAIN 24 148 MONOCYTE CHEMOTACTIC PROTEIN 1.
FT MOD_RES 24 24 BY SIMILARITY.
FT DISULFID 34 59 BY SIMILARITY.
FT DISULFID 35 75 BY SIMILARITY.
FT CARBOHYD 126 126 POTENTIAL.
FT CONFLICT 57 63 MISSING (IN REF. 5).
FT CONFLICT 74 74 A -> R (IN REF. 4).
SO SEQUENCE 148 AA: 16460 MW: DB97F97C CRC32;

Query Match
Best Local Similarity 66.7%; Score 74; DB 1; Length 148;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 73 EICADPNKEMWQ 84
QY 1 EICADPKOKWIO 12

RESULT 30

ID MCP3_MOUSE STANDARD: PRT: 97 AA.
AC Q03366;
DT 01-OCT-1993 (REL. 27, CREATED)
DT 01-OCT-1993 (REL. 27, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 3 PRECURSOR (MCP-3) (MONOCYTE
DE CHEMOTACTICANT PROTEIN 3) (INTERCRINE/CHEMOKINE MANC) (FIC PROTEIN).
GN SCY27 OR MCP3 OR FIC.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-MAST CELLS;
RX MEDLINE: 93094785.
RA KULMBURG P.A., HUBER N.E., SCHEER B.J., WRANN M., BAUMRUCKER T.;
RL J. EXP. MED. 176:1773-1778(1992).
RN [2]
RP SEQUENCE FROM N.A.
RC MEDLINE: 94271193.
RA THIRION S., NYS G., FITEN P., MASURE S., VAN DAMME J.,
RA BIOCHEMA. BIOPHYS. RES. COMMUN. 201:493-499(1994).
RN [3]
RP SEQUENCE FROM N.A.
RA WERNER F.;
RL SUBMITTED (JUN-1992) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [4]
RP SEQUENCE FROM N.A.
RX MEDLINE: 93204948.
RA HEINRICH J.N., RYSECK R.P., MACDONALD-BRAVO H., BRAVO R.;
RL MOL. CELL. BIOL. 13:2020-2030(1993).
RN [5]
RP SEQUENCE FROM N.A.
RX JARMIN D.I., KULMBURG P.A., HUBER N.E., BAUMANN G.,
RA PRIESHOE-STRASSMAYR E.E., BAUMRUCKER T.;
RL J. IMMUNOL. 153:5720-5729(1994).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND
CC EOSINOPHILS, BUT NOT NEUTROPHILS. AUGMENTS MONOCYTE ANTI-TUMOR
CC ACTIVITY (BY SIMILARITY).
CC -1- SUBUNIT: MONOMER (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: Z12297; G57938; -.
DR EMBL: L04694; G192926; -.
DR EMBL: S71251; G547089; -.
DR EMBL: X70058; G437873; -.
DR PIR: S30592; S30592.
DR HSP: P13500; IMCA.
DR MGD: MGI:99512; SCY27.
DR PROSITE: PS00472: SMALL_CYTOKINES_CC: 1.
KM CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN;
FT SIGNAL 1 23
FT CHAIN 24 97 POTENTIAL.
FT MOD_RES 24 24 MONOCYTE CHEMOTACTIC PROTEIN 3.
FT DISULFID 33 57 PYRROLIDONE CARBOXYLIC ACID (BY
FT DISULFID 34 73 SIMILARITY).
FT CARBOHYD 29 29 BY SIMILARITY.
FT CONFLICT 57 63 POTENTIAL.
FT CONFLICT 74 74 MISSING (IN REF. 5).
SO SEQUENCE 97 AA: 10999 MW: 682F557E CRC32;

Query Match
Best Local Similarity 50.0%; Score 73; DB 1; Length 97;
Matches 6; Conservative 5; Mismatches 1; Indels 0; Gaps 0;

Db 71 EVCABAHQKWE 82
QY 1 EICADPKOKWIO 12
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94 50 51.5 348 3 074739 CONSERVED HYPOTHETICAL 7.83e+01
95 50 51.5 363 7 095394 MHC CLASS I PROTEIN MO 7.83e+01
96 50 51.5 445 10 023034 SIMILAR TO CAENORHABDI 7.83e+01
97 50 51.5 541 5 017941 C12D8.10A. 7.83e+01
98 50 51.5 546 5 017942 C12D8.10B. 7.83e+01
99 50 51.5 860 14 093091 ENVELOPE GLYCOPROTEIN. 7.83e+01
100 50 51.5 874 5 018109 SIMILAR TO THE ACTIN-B 7.83e+01

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ALIGNMENTS

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RESULT 1
AC 035933 PRELIMINARY; PRT; 395 AA.
DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DE 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE FRACTALKINE.
OS MUS MUSCULUS (MOUSE).
OC EURARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCUROGNATHI; MORIDAE; MORINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-BALB/C; TISSUE-BRAIN;
RA ROSSI D., HARDMAN G., COPELAND N., GILBERT D.J., JENKINS N.,
RA ZLOTNIK A., BAZAN J.F.,
RL SUBMITTED (MAR-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; U92565; G2459677; -.
DR PFAM; PF00048; 118; 1.
SQ SEQUENCE 395 AA; 42040 MW; 3997A113 CRC32;

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Query Match
Best Local Similarity 81.4%; Score 79; DB 11; Length 395;
Matches 8; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

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DB 73 FCADPKKRWQ 83
OY 2 ICADPKKRWIQ 12

RESULT 2
AC 035188 PRELIMINARY; PRT; 395 AA.
AC 035188;
DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DE 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE NEURONOTACTIN.
GN SCYD1.
OS MUS MUSCULUS (MOUSE).
OC EURARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCUROGNATHI; MORIDAE; MORINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE; 97320499.
RA PAN Y., CLARE L., HONG Z., DOLICH S., DEEDS J., GONZALO J., VATH J.,
RA GOSSELIN M., MA J., DUSSAULT B., WOLF B., ALPERIN A., CULPEPPER J.,
RA GUTIERREZ-RAMOS J.C., GEARING D.,
RT "Neurotactin, a membrane-anchored chemokine upregulated in brain
inflammation."
RL NATURE 387:611-617(1997).
DR EMBL; AF010586; G2317698; -.
DR MGD; MGI:1097153; SCYD1.
DR PFAM; PF00048; 118; 1.
SQ SEQUENCE 395 AA; 42098 MW; E3CD0612 CRC32;

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Query Match
Best Local Similarity 81.4%; Score 79; DB 11; Length 395;
Matches 8; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

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DB 73 FCADPKKRWQ 83
OY 2 ICADPKKRWIQ 12

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RESULT 3
AC 000175 PRELIMINARY; PRT; 119 AA.
AC 000175;
DT 01-JUL-1997 (TREMBLREL. 04, CREATED)
DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
DE 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE MPF-2.
OS HOMO SAPIENS (HUMAN).
OC EURARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RA PATEL V.P., KREIDER B.L., LI Y., LI H., LEUNG K., SALCEDO T.,
RA NARDELLI B., PIPPALIA V., GENTZ S., THOTAKURA R., PARMELEE D.,
RA GENTZ R., GAOTTA G.,
RL J. EXP. MED. 0:0-0(0).
DR EMBL; U85768; G1916252; -.
DR PFAM; PF00048; 118; 1.
SQ SEQUENCE 119 AA; 13119 MW; CDF526F0 CRC32;

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Query Match
Best Local Similarity 77.3%; Score 75; DB 4; Length 119;
Matches 7; Conservative 4; Mismatches 1; Indels 0; Gaps 0;

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DB 72 OFCDPKKRWQ 83
OY 1 ICADPKKRWIQ 12

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RESULT 4
AC 089093 PRELIMINARY; PRT; 97 AA.
AC 089093;
DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
DE 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE CC CHEMOKINE ST38 PRECURSOR.
GN LARC.
OS MUS MUSCULUS (MOUSE).
OC EURARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
OC RODENTIA; SCUROGNATHI; MORIDAE; MORINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RA UTMANS-SCHWEITZ U., LOREZ H., KLINKERT W.E.F., DA SILVA J.,
RA LESSLAVER W.,
RT "A novel rat CC chemokine, identified by targeted differential
display, is upregulated in brain inflammation."
RL J. NEUROIMMUNOL. 0:0-0(1998).
RN [2]
RP SEQUENCE FROM N.A.
RA VILLARES R.,
RL SUBMITTED (JUL-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; AF053313; G3551819; -.
DR EMBL; AJ007862; E1312757; -.
KW SIGNAL.
FT SIGNAL. 1 27 POTENTIAL.
FT CHAIN 28 97 CC CHEMOKINE ST38.
SQ SEQUENCE 97 AA; 10826 MW; 053405BD CRC32;

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Query Match
Best Local Similarity 76.3%; Score 74; DB 11; Length 97;
Matches 7; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

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DB 74 VCADPKKRWV 83
OY 2 ICADPKKRWI 11

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RESULT 5
AC 000585 PRELIMINARY; PRT; 134 AA.
AC 000585;
DT 01-JUL-1997 (TREMBLREL. 04, CREATED)
DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)

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DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE BETA CHEMOKINE EXODUS-2.
OC HOMO SAPIENS (HUMAN).
OS EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RA HROMAS R.A., GRAV P., KLEMSZ M., FIFE K., BROCKMEYER H.;
RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 97400322.
RA HEDRICK J.A., ZLOTNIK A.;
RT "Identification and characterization of a novel beta chemokine
containing six conserved cysteines."
RL J. IMMUNOL. 159:1589-1593(1997).
RN [3]
RP SEQUENCE FROM N.A.
RA HEDRICK J.A., ZLOTNIK A.;
RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [4]
RP SEQUENCE FROM N.A.
RA NAGIRA M., IMAI T., HIESHIMA K., KUSUDA J., RIDANPAA M., TAKAGI S.,
NISHIMURA M., KATIZAKI M., NOMIYAMA H., YOSHIE O.;
RL SUBMITTED (AUG-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: U88320; G2196920; -.
DR EMBL: AF001979; G2624925; -.
DR EMBL: AB002409; D1022673; -.
DR PFAM: PF00048; 118; 1.
SO SEQUENCE 134 AA; 14646 MW; FE86A239 CRC32;

Query Match 76.3%; Score 74; DB 4; Length 134;
Best Local Similarity 66.7%; Pred. No. 1.56e-03;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 73 EICADPKOKWIO 84
Qy 1 EICADPKOKWIO 12

RESULT 6
ID 088430 PRELIMINARY; PRT; 92 AA.
AC 088430;
DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE CC CHEMOKINE ABCD-1.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
OC ROSENTIA; SCIUROGNATHI; MORIDAE; MORINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-LIVER;
RX MEDLINE: 98353531.
RA SCHANTEL C., PARDALI E., SALLUSTO F., SPELETAS M., RUDEL C.,
SHIMIZU T., SEIDL T., ANDERSSON J., MELCHERS F., ROLINK A.G.,
SIDERAS P.;
RT "Activated murine B lymphocytes and dendritic cells produce a novel
CC chemokine which acts selectively on activated T cells."
RL J. EXP. MED. 188:451-463(1998).
DR EMBL: AF052505; G3378116; -.
SO SEQUENCE 92 AA; 10302 MW; BC7219A0 CRC32;

Query Match 75.3%; Score 73; DB 11; Length 92;
Best Local Similarity 63.6%; Pred. No. 2.57e-03;
Matches 7; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 74 DICADPROVWV 84
Qy 1 EICADPKOKWIO 11

RESULT 7

ID 057411 PRELIMINARY; PRT; 97 AA.
AC 057411;
DT 01-JUN-1998 (TREMBLREL. 06, CREATED)
DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
DT 01-JUN-1998 (TREMBLREL. 06, LAST ANNOTATION UPDATE)
DE LYMPHOTACTIN PRECURSOR.
OS GALLUS GALLUS (CHICKEN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; ARCHOSAURIA; AVES;
OC NEOGNATHAE; GALLIFORMES; PHASIANIDAE; PHASIANINAE; GALLUS.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-SPLEEN;
RA ROSSI D.L., BAZAN J.F., ZLOTNIK A.;
RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: AF006742; G2827882; -.
KW SIGNAL.
FT SIGNAL 1 24 POTENTIAL.
FT CHAIN 25 97 LYMPHOTACTIN.
SO SEQUENCE 97 AA; 11131 MW; 3290101C CRC32;

Query Match 73.2%; Score 71; DB 13; Length 97;
Best Local Similarity 63.6%; Pred. No. 6.85e-03;
Matches 7; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

Db 72 ICVHPEOKWIO 82
Qy 2 ICADPKOKWIO 12

RESULT 8
ID 014745 PRELIMINARY; PRT; 80 AA.
AC 014745;
DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
DT 01-NOV-1996 (TREMBLREL. 01, LAST ANNOTATION UPDATE)
DE LD78 ALPHA BETA PRECURSOR (FRAGMENT).
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-BRAIN;
RA ISHIZUKA K., IGATA-YI R., NARUSE K., NAKASHIMA H., OUCHI K.,
RA KATSURAGI S., KIN Y., OHMOTO Y., NOMIYAMA H., ITO M., MIURA R.,
RA MIYAKAWA T.;
RL SUBMITTED (AUG-1995) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: D63785; G961440; -.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
DR PFAM: PF00048; 118; 1.
KW SIGNAL.
FT NON_TER 1 1
FT SIGNAL <1 16 POTENTIAL.
FT CHAIN 17 >80 LD78 ALPHA BETA.
FT NON_TER 80 80
SO SEQUENCE 80 AA; 8857 MW; 3F87F1C6 CRC32;

Query Match 72.2%; Score 70; DB 4; Length 80;
Best Local Similarity 50.0%; Pred. No. 1.11e-02;
Matches 6; Conservative 4; Mismatches 2; Indels 0; Gaps 0;

Db 65 OVCADPSEWVO 76
Qy 1 EICADPKOKWIO 12

RESULT 9
ID 099664 PRELIMINARY; PRT; 95 AA.
AC 099664;
DT 01-MAY-1997 (TREMBLREL. 03, CREATED)
DT 01-MAY-1997 (TREMBLREL. 03, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE CHEMOKINE EXODUS.
OS HOMO SAPIENS (HUMAN).

OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
 OC CATARRHINI; HOMINIDAE; HOMO.
 [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-C57BL/6J;
 RX MEDLINE: 98146056.
 RA GUNN M.D., NGO V.N., ANSEL K.M., EKLAND E.H., CYSTER J.G.,
 RA WILLIAMS L.T.;
 RT "A B-cell-homing chemokine made in lymphoid follicles activates
 Burkitt's lymphoma receptor-1.";
 RL NATURE 391:799-803(1998).
 DR EMBL: AF044196; G2911374; -;
 SQ SEQUENCE 109 AA; 11927 MW; BB6CC22 CRC32;
 Query Match 70.1%; Score 68; DB 11; Length 109;
 Best Local Similarity 54.5%; Pred. No. 2.91e-02;
 Matches 6; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Db 74 ICVNPRAKMQ 84
 ID 11:11:11
 QY 2 ICADPKOKMI 12

RESULT 12
 ID 015467 PRELIMINARY; PRT; 120 AA.
 AC 015467;
 DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
 DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE IL-10-INDUCIBLE CHEMOKINE.
 OS ILINCK OR SCY16.
 GN HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
 OC CATARRHINI; HOMINIDAE; HOMO.
 [1]
 RP SEQUENCE FROM N.A.
 RA HEDRICK J.A., HELMS A., GORMAN D., ZLOTNIK A.;
 RL SUBMITTED (NOV-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 [2]
 RP SEQUENCE FROM N.A.
 RC TISSUE-LIVER;
 RA SHODAI K., HISHIMA K., FUKUDA S., IIO M., MIDRA R., IMAI T.,
 RA YOSHIE O., NOMIYAMA H.;
 RL BIOCHIM. BIOPHYS. ACTA 0:0-0(1998).
 [3]
 RP SEQUENCE FROM N.A.
 RA NOMIYAMA H.;
 RT "Structure of a region of 181 kb containing five CC chemokine genes.";
 RL SUBMITTED (AUG-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
 [4]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 98308096.
 RA YOUN B.S., ZHANG S., BROXMEYER H.E., ANTOL K., FRASER M.J. JR.,
 RA HANGOC G., KWON B.S.;
 RT "Isolation and characterization of LMC, a novel lymphocyte and
 RT monocyte chemoattractant human CC chemokine, with myelosuppressive
 RT activity.";
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 247:217-222(1998).
 DR EMBL: U91746; G2581781; -;
 DR EMBL: AB007454; D1024963; -;
 DR EMBL: AF088219; G3719365; -;
 DR EMBL: AF054467; G3395776; -;
 DR PRAM: PF00048; 118; 1.
 KW SIGNAL.
 SQ SEQUENCE 120 AA; 13600 MW; A079DF66 CRC32;

Query Match 70.1%; Score 68; DB 4; Length 120;
 Best Local Similarity 41.7%; Pred. No. 2.91e-02;
 Matches 5; Conservative 6; Mismatches 1; Indels 0; Gaps 0;

Db 74 ECVTPNDWDVQ 85
 ID 11:11:11:11
 QY 1 ICADPKOKMI 12

RESULT 11
 ID 055038 PRELIMINARY; PRT; 109 AA.
 AC 055038;
 DT 01-JUN-1998 (TREMBLREL. 06, CREATED)
 DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE B LYMPHOCYTE CHEMOATTRACTANT BLC.
 OS MUS MUSCULUS (MOUSE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
 OC SCIUROGNATHI; MURIDAE; MURINAE; MUS.

RP SEQUENCE FROM N.A.
 RC STRAIN-C57BL/6J;
 RX MEDLINE: 98146056.
 RA GUNN M.D., NGO V.N., ANSEL K.M., EKLAND E.H., CYSTER J.G.,
 RA WILLIAMS L.T.;
 RT "A B-cell-homing chemokine made in lymphoid follicles activates
 Burkitt's lymphoma receptor-1.";
 RL NATURE 391:799-803(1998).
 DR EMBL: AF044196; G2911374; -;
 SQ SEQUENCE 109 AA; 11927 MW; BB6CC22 CRC32;
 Query Match 70.1%; Score 68; DB 11; Length 109;
 Best Local Similarity 54.5%; Pred. No. 2.91e-02;
 Matches 6; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Db 74 ICVNPRAKMQ 84
 ID 11:11:11
 QY 2 ICADPKOKMI 12

RESULT 12
 ID 015467 PRELIMINARY; PRT; 120 AA.
 AC 015467;
 DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
 DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE IL-10-INDUCIBLE CHEMOKINE.
 OS ILINCK OR SCY16.
 GN HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
 OC CATARRHINI; HOMINIDAE; HOMO.
 [1]
 RP SEQUENCE FROM N.A.
 RA HEDRICK J.A., HELMS A., GORMAN D., ZLOTNIK A.;
 RL SUBMITTED (NOV-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 [2]
 RP SEQUENCE FROM N.A.
 RC TISSUE-LIVER;
 RA SHODAI K., HISHIMA K., FUKUDA S., IIO M., MIDRA R., IMAI T.,
 RA YOSHIE O., NOMIYAMA H.;
 RL BIOCHIM. BIOPHYS. ACTA 0:0-0(1998).
 [3]
 RP SEQUENCE FROM N.A.
 RA NOMIYAMA H.;
 RT "Structure of a region of 181 kb containing five CC chemokine genes.";
 RL SUBMITTED (AUG-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
 [4]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 98308096.
 RA YOUN B.S., ZHANG S., BROXMEYER H.E., ANTOL K., FRASER M.J. JR.,
 RA HANGOC G., KWON B.S.;
 RT "Isolation and characterization of LMC, a novel lymphocyte and
 RT monocyte chemoattractant human CC chemokine, with myelosuppressive
 RT activity.";
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 247:217-222(1998).
 DR EMBL: U91746; G2581781; -;
 DR EMBL: AB007454; D1024963; -;
 DR EMBL: AF088219; G3719365; -;
 DR EMBL: AF054467; G3395776; -;
 DR PRAM: PF00048; 118; 1.
 KW SIGNAL.
 SQ SEQUENCE 120 AA; 13600 MW; A079DF66 CRC32;

Query Match 70.1%; Score 68; DB 4; Length 120;
 Best Local Similarity 41.7%; Pred. No. 2.91e-02;
 Matches 5; Conservative 6; Mismatches 1; Indels 0; Gaps 0;

Db 74 ECVTPNDWDVQ 85
 ID 11:11:11:11
 QY 1 ICADPKOKMI 12

RESULT 11
 ID 055038 PRELIMINARY; PRT; 109 AA.
 AC 055038;
 DT 01-JUN-1998 (TREMBLREL. 06, CREATED)
 DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE B LYMPHOCYTE CHEMOATTRACTANT BLC.
 OS MUS MUSCULUS (MOUSE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
 OC SCIUROGNATHI; MURIDAE; MURINAE; MUS.

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RESULT 13
ID 093238; PRELIMINARY; PRT; 101 AA.
AC 093238;
DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE CC CHEMOKINE-1.
OS CYPRINUS CARPIO (COMMON CARP).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; ACTINOPTERYGII; NEOPTERYGII;
OC TELEOSTEI; EUTELEOSTEI; OSTARIOPHYSI; CYPRINIFORMES; CYPRINOIDEA;
OC CYPRINIDAE; CYPRININAE; CYPRINUS.
RN [1]
RP SEQUENCE FROM N.A.
RA FUJIKI K., NAKAO M., SHIN D., YANO T.;
RT "CDNA cloning of a carp CC chemokine homologous to mammalian
   eotaxins."
RL SUBMITTED (JAN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: AB010469; D1032417; -.
SQ SEQUENCE 101 AA; 11266 MW; 9CFBD540 CRC32;

Query Match
Best Local Similarity 54.5%; Score 67; DB 13; Length 101;
Matches 6; Conservative 4; Mismatches 1; Indels 0; Gaps 0;

Db 72 EPCSDPKRLMV 82
QY 1 EICADPKQKWI 11

RESULT 14
ID 043646; PRELIMINARY; PRT; 91 AA.
AC 043646;
DT 01-JUN-1998 (TREMBLREL. 06, CREATED)
DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE RANTES PRECURSOR.
GN SCY5.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RA JANG J.S., KIM B.E.;
RL SUBMITTED (JAN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]
RP SEQUENCE FROM N.A.
RA NOMIYAMA H.;
RT "Structure of a region of 181 kb containing five CC chemokine genes."
RL SUBMITTED (AUG-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: AF043341; G2905632; -.
DR EMBL: AF088219; G3719366; -.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW SIGNAL.
RN [4]
FT SIGNAL. 1 23 POTENTIAL.
FT CHAIN 24 91 RANTES.
SQ SEQUENCE 91 AA; 9990 MW; CF404FAD CRC32;

Query Match
Best Local Similarity 41.7%; Score 66; DB 4; Length 91;
Matches 5; Conservative 5; Mismatches 2; Indels 0; Gaps 0;

Db 71 QVCANPEKKWVR 82
QY 1 EICADPKQKWI 12

RESULT 15
ID 062812; PRELIMINARY; PRT; 97 AA.
AC 062812;
DT 01-AUG-1998 (TREMBLREL. 07, CREATED)
DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
DT 01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
DE INTERLEUKIN-8 (FRAGMENT).

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GN IL-8
OS EQUUS CABALLUS (HORSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
OC PERISSODACTYLA; EQUIDAE; EQUUS.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-BRONCHOALVEOLAR TISSUE;
RA FRANCHINI M.;
RL SUBMITTED (APR-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: AF062377; G3126973; -.
FT NON TER 97
SQ SEQUENCE 97 AA; 10742 MW; 00396FBF CRC32;

Query Match
Best Local Similarity 50.0%; Score 66; DB 6; Length 97;
Matches 6; Conservative 3; Mismatches 3; Indels 0; Gaps 0;

Db 75 ENCLNPHTKWVO 86
QY 1 EICADPKQKWI 12

RESULT 16
ID 098158; PRELIMINARY; PRT; 95 AA.
AC 098158; 012569;
DT 01-FEB-1997 (TREMBLREL. 02, CREATED)
DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE ORF K6.
OS KAPOSI'S SARCOMA-ASSOCIATED HERPESVIRUS.
OC VIRUSES; DSDNA VIRUSES, NO RNA STAGE; HERPESVIRIDAE;
OC GAMMAHERPESVIRINAE; RHADINOVIRUS.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 97094384.
RA MOORE P.S., BASHOFF C., WEISS R.A., CHANG Y.;
RT "Molecular mimicry of human cytokine and cytokine response pathway
   genes by KSHV."
RL SCIENCE 274:1739-1744(1996).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 97121480.
RA RUSSO J.J., BOHENKY R.A., CHEN M.C., CHEN J., YAN M., MADDALENA D.,
RA PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
RT "Nucleotide sequence of the Kaposi sarcoma-associated herpesvirus
   (HHV8)."
RL PROC. NATL. ACADE. SCI. U.S.A. 93:14862-14867(1996).
RN [3]
RP SEQUENCE FROM N.A.
RA RUSSO J.J., BOHENKY R.A., CHEN M.C., CHEN J., YAN M., MADDALENA D.,
RA PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
RL SUBMITTED (OCT-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [4]
RP SEQUENCE FROM N.A.
RA NICHOLAS J., ROVOLO V.R., BURNS W.H., SANDFORD G., WAN X., CIUFFO D.,
RA HENDRICKSON S., GOO H.G., HAYWARD G.S., REITZ M.S.;
RL SUBMITTED (NOV-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [5]
RP SEQUENCE FROM N.A.
RA RUSSO J.J., BOHENKY R.A., CHEN M.C., CHEN J., YAN M., MADDALENA D.,
RA PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [6]
RP SEQUENCE FROM N.A.
RX MEDLINE: 97296220.
RA NEIPREL F., ALBRECHT J.C., FLECKENSTEIN B.;
RT "Cell-homologous genes in the Kaposi's sarcoma-associated rhadinovirus
   human herpesvirus 8: determinants of its pathogenicity?";
RL J. VIROL. 71:4187-4192(1997).
RN [7]
RP SEQUENCE FROM N.A.
RA SUN R., LIN S.-F., MILLER G.;
RL SUBMITTED (SEP-1996) TO EMBL/GENBANK/DBJ DATA BANKS.

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DR EMBL: U75698; G1718266; -
DR EMBL: U74585; G1658273; -
DR EMBL: U93872; G2246346; -
DR EMBL: U71366; G3551763; -
DR PFAM: PF00048; 118; 1.
KW HYPOTHETICAL PROTEIN.
SQ SEQUENCE 95 AA; 10485 MW; 5283348D CRC32;

Query Match 67.0%; Score 65; DB 14; Length 95;
Best Local Similarity 50.0%; Pred. No. 1.20e-01;
Matches 6; Conservative 4; Mismatches 2; Indels 0; Gaps 0;

Db 74 EICADPKKMW 85
:|||||:|:|:
1 EICADPKKMW 12

RESULT 17
ID P78423 PRELIMINARY; PRT; 397 AA.
AC P78423; 000672;
DT 01-MAY-1997 (TREMBLREL. 03, CREATED)
DT 01-MAY-1997 (TREMBLREL. 03, LAST SEQUENCE UPDATE)
DE 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE CX3C CHEMOKINE PRECURSOR.
GN A-152E5.2.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 97177111.
RA BAZAN J.F., BACON K.B., HARDYMAN G., WANG W., SOO K., ROSSI D.,
RA GREAVES D.R., ZLOTNIK A., SCHALL T.J.;
RT "A new class of membrane-bound chemokine with a CX3C motif.";
RL NATURE 385:640-644(1997).
RN [2]
RP SEQUENCE FROM N.A.
RA ADAMS M.D., LOFTUS B.J., ZHOU L., CROSBY M., FUHRMANN J., MASON T.M.,
RA BRANDON R., KIM U.J., KERLAVAGE A.R., VENTER J.C.;
RT "Homo sapiens Chromosome 16 BAC clone C1987SK-A-152E5.";
RL SUBMITTED (JUN-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
DR EMBL: U91835; G1899259; -
DR EMBL: U84487; G1888523; -
DR EMBL: AC004382; G3252821; -
DR PFAM: PF00048; 118; 1.
KW SIGNAL.
FT CHAIN 25 397 POTENTIAL.
FT CHAIN 25 397 CX3C CHEMOKINE.
SQ SEQUENCE 397 AA; 42202 MW; C8093D7D CRC32;

Query Match 67.0%; Score 65; DB 4; Length 397;
Best Local Similarity 60.0%; Pred. No. 1.20e-01;
Matches 6; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 73 FCADPKKMW 82
:|||||:|:|:
2 ICADPKKMW 11

RESULT 18
ID 000626 PRELIMINARY; PRT; 93 AA.
AC 000626;
DT 01-JUL-1997 (TREMBLREL. 04, CREATED)
DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
DE 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE MACROPHAGE-DERIVED CHEMOKINE PRECURSOR.
GN MDC OR A-152E5.1.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RA GODISKA R., CHANTRY D., RAPORT C.J., SOZZANI S., ALLAVENA P.,

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RA MANTOVANI A., GRAY P.W.;
RL J. EXP. MED. 185:0-0(0).
RN [2]
RP SEQUENCE FROM N.A.
RA CHANG M.S., MCNINCH J., ELIAS III C., MANTHEY C.L., GROSSHANS D.,
RA MENG T., BOONE T., ANDREW D.P.;
RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
RN [3]
RP SEQUENCE FROM N.A.
RA ADAMS M.D., LOFTUS B.J., ZHOU L., CROSBY M., FUHRMANN J., MASON T.M.,
RA BRANDON R., KIM U.J., KERLAVAGE A.R., VENTER J.C.;
RT "Homo sapiens Chromosome 16 BAC clone C1987SK-A-152E5.";
RL SUBMITTED (JUN-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
DR EMBL: U83171; G1931581; -
DR EMBL: U83239; G2062425; -
DR PFAM: AC004382; G3252820; -
DR PFAM: PF00048; 118; 1.
KW SIGNAL.
FT CHAIN 25 93 POTENTIAL.
FT CHAIN 25 93 MACROPHAGE-DERIVED CHEMOKINE.
SQ SEQUENCE 93 AA; 10580 MW; 65EA63D2 CRC32;

Query Match 66.0%; Score 64; DB 4; Length 93;
Best Local Similarity 63.6%; Pred. No. 1.91e-01;
Matches 7; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 74 EICADPKKMW 84
:|||||:|:|:
1 EICADPKKMW 11

RESULT 19
ID 009002 PRELIMINARY; PRT; 133 AA.
AC 009002;
DT 01-JUL-1997 (TREMBLREL. 04, CREATED)
DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
DE 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE SMALL INDUCIBLE CYTOKINE A21 (TCA4).
GN SCYA21.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCIUROGNATHI; MURIDAE; MURINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=THYMUS;
RA TANABE S., LU Z., LUO Y., QUACKENBUSH E.J., BERMAN M.A.,
RA COLLINS-RACIE L.A., MI S., REILLY C., LO D., JACOBS K.A., DORF M.E.;
RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 97400322.
RA HEDRICK J.A., ZLOTNIK A.;
RT "Identification and characterization of a novel beta chemokine
RT containing six conserved cysteines.";
RL J. IMMUNOL. 159:1589-1593(1997).
RN [3]
RP SEQUENCE FROM N.A.
RA HEDRICK J.A., ZLOTNIK A.;
RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
DR EMBL: AF006637; G2209189; -
DR EMBL: AF001980; G2624927; -
DR MGD; MGI:1097677; SCYA21.
DR PFAM: PF00048; 118; 1.
SQ SEQUENCE 133 AA; 14558 MW; C0532523 CRC32;

Query Match 66.0%; Score 64; DB 11; Length 133;
Best Local Similarity 50.0%; Pred. No. 1.91e-01;
Matches 6; Conservative 4; Mismatches 2; Indels 0; Gaps 0;

Db 73 EICADPKKMW 84
:|||||:|:|:
1 EICADPKKMW 12

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RESULT 20
ID 009006 PRELIMINARY: PRT; 133 AA.
AC 009006;
DT 01-JUL-1997 (TREMBLREL. 04, CREATED)
DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
DE 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
GN BETA CHEMOKINE EXODUS-2.
OS SCYA21.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCIROGNATHI; MURIDAE; MURINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-TOTAL FETUS;
RC MEDLINE; 97444139.
RA HROMAS R., KIM C.H., KLEMSZ M., KRATHWOHL M., FIFE K., COOPER S.,
RA SCHNIZLEIN-BICK C., BROXMEYER H.E.;
RT "Isolation and characterization of Exodus-2, a novel C-C chemokine
RT with a unique 37-amino acid carboxyl-terminal extension."
RL J. IMMUNOL. 159:2554-2558(1997).
RN [2]
RP SEQUENCE FROM N.A.
RC TISSUE-TOTAL FETUS;
RA HROMAS R.A.;
RL SUBMITTED (JUN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; U88322; G3169697; -.
DR MGI; MGI:1097677; SCYA21.
DR PFM; PFM0048; 118; 1.
DR PFM; PFM0048; 118; 1.
SQ SEQUENCE 133 AA; 14600 MW; B34A5E22 CRC32;

Query Match
Best Local Similarity 66.0%; Score 64; DB 11; Length 133;
Matches 6; Conservative 4; Mismatches 2; Indels 0; Gaps 0;

Db 73 ELCANPEGWVQ 84
QY 1 EICADPKQKMIQ 12

RESULT 21
ID 099126 PRELIMINARY: PRT; 760 AA.
AC 099126;
DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
DT 01-MAY-1997 (TREMBLREL. 03, LAST ANNOTATION UPDATE)
DE CHITIN SYNTHETASE I.
GN CHS1.
OS USULAGO MAYDIS (SMUT FUNGUS).
OC EUKARYOTA; FUNGI; BASIDIOMYCOTA; USTILAGINOMYCETES;
OC USTILAGINOMYCETIDAE; USTILAGINALES; USTILAGINACEAE; USTILAGO.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-RK32 (A2B3);
RA XOCOONOSTLE-CAZARES B., LEON-RAMIREZ C., RUIZ-HERREIRA J.;
RL MICROBIOLOGY 142:377-387(1996).
DR EMBL; X87748; G861151; -.
SQ SEQUENCE 760 AA; 85181 MW; 2F24C4C9 CRC32;

Query Match
Best Local Similarity 66.0%; Score 64; DB 3; Length 760;
Matches 7; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 483 EICAEETGKRW 492
QY 1 EICADPKQKMW 10

RESULT 22
ID 043927 PRELIMINARY: PRT; 109 AA.
AC 043927;
DT 01-JUN-1998 (TREMBLREL. 06, CREATED)
DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
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DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE CXC CHEMOKINE PRECURSOR.
GN BCA-1.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RC MEDLINE; 98130629.
RA LEGIER D.F., LOETSCHER M., STUBER ROOS R., CLARK-LEWIS I.,
RA BAGGIOINI M., MOSER B.;
RT "A B-cell-attracting chemokine 1, a human CXC chemokine expressed in
RT lymphoid tissues, selectively attracts B lymphocytes via BLR1/CXCR5."
RL J. EXP. MED. 187:653-660(1998).
RN [2]
RP SEQUENCE FROM N.A.
RC MEDLINE; 98146056.
RA GUNN M.D., NGO V.N., ANSEL K.M., EKLAND E.H., CYSTER J.G.,
RA WILLIAMS L.T.;
RT "A B-cell-homing chemokine made in lymphoid follicles activates
RT Burkitt's lymphoma receptor-1."
RL NATURE 391:799-803(1998).
RN [3]
RP SEQUENCE FROM N.A.
RA NAPOLITANO M., SPINETTI G., GARTANO C., CAPOGROSSI C.M.;
RL SUBMITTED (OCT-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; AJ002211; E1249325; -.
DR EMBL; AF044197; G2911376; -.
DR EMBL; AF029894; G3169814; -.
KV SIGNAL.
FT SIGNAL. 1 22 POTENTIAL.
FT CHAIN 23 109 POTENTIAL.
SQ SEQUENCE 109 AA; 12664 MW; BE5A46BC CRC32;

Query Match
Best Local Similarity 63.9%; Score 62; DB 4; Length 109;
Matches 6; Conservative 1; Mismatches 4; Indels 0; Gaps 0;

Db 75 VCVDPQAEWVQ 85
QY 2 ICADPKQKMIQ 12

RESULT 23
ID 084834 PRELIMINARY: PRT; 1053 AA.
AC 084834;
DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE RIBONUCLEOSIDE REDUCTASE, LARGE CHAIN.
GN NRDA.
OS CHLAMYDIA TRACHOMATIS.
OC BACTERIA; CHLAMYDIALES; CHLAMYDIACEAE; CHLAMYDIA.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-D/TW-3/CX;
RA STEPHENS R.S., KALMAN S., LAMMEL C.J., FAN J., MARATHE R., ARAVIND L.,
RA MITCHELL W.P., OLINGER L., TATISOV R.L., ZHAO Q., KOONIN E.V.,
RA DAVIS R.W.;
RT "Genome Sequence of an Obligate Intracellular Pathogen of Humans:
RT Chlamydia trachomatis."
RL SCIENCE 0:0-0(1998).
RN [2]
RP SEQUENCE FROM N.A.
RC STRAIN-D/TW-3/CX;
RA STEPHENS R.S., KALMAN S., LAMMEL C.J., FAN J., MARATHE R., ARAVIND L.,
RA MITCHELL W.P., OLINGER L., TATISOV R.L., ZHAO Q., KOONIN E.V.,
RA DAVIS R.W.;
RL SUBMITTED (MAY-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; AE001355; G3329297; -.
SQ SEQUENCE 1053 AA; 120168 MW; 781C1449 CRC32;

Query Match
Score 61.9%; Score 60; DB 2; Length 1053;
```

Best Local Similarity 60.0%; Pred. No. 1.17e+00;
Matches 6; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 954 CASRROKMWID 963
11 :|||:
Oy 3 CADPKOKMWI 12

RESULT 24

PRELIMINARY; PRT; 399 AA.

ID 068409
AC 068409
DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
DE 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE ORF UL154.
OS HUMAN CYTOMEGALOVIRUS.
OC VIRUSES: DSDNA VIRUSES, NO RNA STAGE; HERPESVIRIDAE; BETAHERPESVIRINAE;
CC CYTOMEGALOVIRUS.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-TOWNE;
RA MEDLINE; 96099416.
RX CHA T.A., TOM E., KEMBLE G.W., DUKE G.M., MOCARSKI E.S., SPATE R.R.;
RT "Human cytomegalovirus clinical isolates carry at least 19 genes not
found in laboratory strains."
RL J. VIROL. 70:78-83(1996).
DR EMBL; U33332; G1167943; -.
SO SEQUENCE 399 AA; 45181 MW; 79B5D103 CRC32;

Query Match 60.8%; Score 59; DB 14; Length 399;

Best Local Similarity 44.4%; Pred. No. 1.82e+00;
Matches 4; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Db 308 VCEPKHEW 316
:|:|:|:
Oy 2 ICADPKOKMWI 10

RESULT 25

PRELIMINARY; PRT; 522 AA.

ID 061090
AC 061090
DT 01-AUG-1998 (TREMBLREL. 07, CREATED)
DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
DE 01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
DE SERINE RICH PROTEIN HOMOLOG (FRAGMENT).
OS PLASMODIUM VIVAX.
OC EUKARYOTA; ALVEOLATA; APICOMPLEXA; HAEMOSPORIDA; PLASMODIUM.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-SALVADOR I;
RA ROSENTHAL P.J.;
RL SUBMITTED (MAR-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; AF052747; G2970697; -.
FT NON-TER 1
SO SEQUENCE 522 AA; 58070 MW; B1E4CEB2 CRC32;

Query Match 59.8%; Score 58; DB 5; Length 522;

Best Local Similarity 55.6%; Pred. No. 2.83e+00;
Matches 5; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 158 CPAKKNWI 166
|:|:|:|:
Oy 3 CADPKOKMWI 11

RESULT 26

PRELIMINARY; PRT; 982 AA.

ID 093290
AC 093290
DT 01-FEB-1997 (TREMBLREL. 02, CREATED)
DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE HYPOTHETICAL PROTEIN C27D8.3.
GN C27D8.3.

OS CAENORHABDITIS ELEGANS.
OC EUKARYOTA; METAZOA; NEMATODA; SECERNENTEA; RHABDITIA; RHABDITIDA;
CC RHABDITINA; RHABDITOIDEA; RHABDITIDAE; PELODERINAE; CAENORHABDITIS.

[1]
RP SEQUENCE FROM N.A.

RA PERCY C.;
RL SUBMITTED (SEP-1996) TO EMBL/GENBANK/DBJ DATA BANKS.

[2]
RP SEQUENCE FROM N.A.

RX MEDLINE; 94150718.
RA WILSON R., AINSOUGH R., ANDERSON K., BAYNES C., BERKS M., BONFIELD J.,
RA BURTON J., CONNELL M., COSEY T., COOPER J., COULSON A., CRAXTON M.,
RA DEAR S., DU Z., DUBIN R., FAYELLO A., FULTON L., GARDNER A., GREEN P.,
RA HAWKINS T., HILLIER L., JIER M., JOHNSTON L., JONES M., KERSHAW J.,
RA KIRSTEN J., LAISTER N., LATREILLE P., LIGHTNING J., LLOYD C.,
RA MCDURRAY A., MORTIMORE B., O'CALLAGHAN M., PARSONS J., PERCY C.,
RA RIFKEN L., ROOPRA A., SAUNDERS D., SHOWNKEEN R., SMALDON N., SMITH A.,
RA SONNHAMMER E., STADEN R., SUYSTON J., THIERRY-MIEG J., THOMAS K.,
RA VAUDIN M., VAUGHAN K., WATERSTON R., WATSON A., WEINSTOCK L.,
RA WILKINSON-SPROAT J., WOLDMAN P.;
RT "2.2 Mb of contiguous nucleotide sequence from chromosome III of C.
elegans."
RL NATURE 368:32-38(1994).
DR EMBL; 280214; E347985; -.
KW HYPOTHETICAL PROTEIN.
SO SEQUENCE 982 AA; 112538 MW; 41972852 CRC32;

Query Match 59.8%; Score 58; DB 5; Length 982;

Best Local Similarity 45.5%; Pred. No. 2.83e+00;
Matches 5; Conservative 4; Mismatches 2; Indels 0; Gaps 0;

Db 188 VCEPKOKMWI 198
:|:|:|:|:
Oy 2 ICADPKOKMWI 12

RESULT 27

PRELIMINARY; PRT; 187 AA.

ID 083516
AC 083516
DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE HYPOTHETICAL 21.4 KD PROTEIN.
GN TP0503.

OS TREPONEMA PALLIDUM.

OC BACTERIA; SPIROCHAETALES; SPIROCHAETACEAE; TREPONEMA.

[1]
RP SEQUENCE FROM N.A.

RX MEDLINE; 98332770.
RA FRASER C.M., NORRIS S.J., WEINSTOCK G.M., WHITE O., SUTTON G.G.,
RA DODSON R., GWINN M., HICKEY E.K., CLAYTON R., KETCHUM K.A.,
RA SODERGREN E., HARDHAM J.M., MCLEOD M.P., SALZBERG S., PETERSON J.,
RA KHALAK H., RICHARDSON D., HOWELL J.K., CHIDAMBARAM M., UTERBACK T.,
RA MCDONALD L., ARTIACH P., BOWMAN C., COTTON M.D., FUJII C., GARLAND S.,
RA HATCH B., HORST K., ROBERTS K., WATHEY L., WEIDMAN J., SMITH H.O.,
RA VENTER J.C.;

RT "Complete Genome Sequence of Treponema pallidum, the Syphilis
Spirochete."
RL SCIENCE 281:375-388(1998).

[2]
RP SEQUENCE FROM N.A.

RX FRASER C.M., NORRIS S.J., WEINSTOCK G.M., WHITE O., SUTTON G.G.,
RA DODSON R., GWINN M., HICKEY E.K., CLAYTON R., KETCHUM K.A.,
RA SODERGREN E., HARDHAM J.M., MCLEOD M.P., SALZBERG S., PETERSON J.,
RA KHALAK H., RICHARDSON D., HOWELL J.K., CHIDAMBARAM M., UTERBACK T.,
RA MCDONALD L., ARTIACH P., BOWMAN C., COTTON M.D., FUJII C., GARLAND S.,
RA HATCH B., HORST K., ROBERTS K., WATHEY L., WEIDMAN J., SMITH H.O.,
RA VENTER J.C.;
RL SUBMITTED (MAR-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; AE001226; G3322795; -.
KW HYPOTHETICAL PROTEIN.
SO SEQUENCE 187 AA; 21410 MW; 50303E26 CRC32;

Query Match 58.8%; Score 57; DB 2; Length 187;
 Best Local Similarity 54.5%; Pred. No. 4.36e+00;
 Matches 6; Conservative 4; Mismatches 0; Indels 1; Gaps 1;
 Db 31 CPOPRVQKWKQ 41
 1:1:1:1:1:1
 QY 3 CADPK-QKWKQ 12

RESULT 28
 ID Q67634 PRELIMINARY; PRT; 203 AA.
 AC Q67634;
 DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
 DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE ECO Q PROTEIN (FRAGMENT).
 OS GALLID HERPESVIRUS TYPE 1.
 OC VIRUSES: DSDNA VIRUSES, NO RNA STAGE; HERPESVIRIDAE;
 CC ALPHAHERPESVIRINAE; VARICELLOVIRUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-GA;
 RX MEDLINE: 96074534.
 RA PENG O., ZENG M., BHUTAN Z.A., UBUKATA E., TANAKA A., NONOYAMA M.,
 RA SHIRAZI Y.,
 RT "Isolation and characterization of Marek's disease virus (MDV) cDNAs
 RT mapping to the BamHI-12, BamHI-Q2, and BamHI-L fragments of the MDV
 RT genome from lymphoblastoid cells transformed and persistently infected
 RT with MDV.";
 RL VIROLOGY 213:590-599(1995).
 DR EMBL: U34866; G1185444; -.
 DR PFM: PF00048; 118; 1.
 FT NON_TER 1
 SQ SEQUENCE 203 AA; 23132 MW; 887D04C3 CRC32;

Query Match 58.8%; Score 57; DB 14; Length 203;
 Best Local Similarity 45.5%; Pred. No. 4.36e+00;
 Matches 5; Conservative 2; Mismatches 4; Indels 0; Gaps 0;
 Db 145 VCVDEAPWVQ 155
 1:1:1:1:1:1
 QY 2 ICADPKQKWKQ 12

RESULT 29
 ID P91309 PRELIMINARY; PRT; 1224 AA.
 AC P91309;
 DT 01-MAY-1997 (TREMBLREL. 03, CREATED)
 DT 01-MAY-1997 (TREMBLREL. 03, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE CODED FOR BY C. ELEGANS CDNA YK10F8.5.
 GN F46F11.1.
 OS CAENORHABDITIS ELEGANS.
 CC EUKARYOTA: METAZOA: NEMATODA: SECERNENTEA: RHABDITIA: RHABDITIDA;
 CC RHABDITINA: RHABDITOIDEA: RHABDITIDAE: PELODERTINAE: CAENORHABDITIS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-BRISTOL N2;
 RX MEDLINE: 94150718.
 RA WILSON R., AINSCOUGH R., ANDERSON K., BAYNES C., BERKS M., BONFIELD J.,
 RA BURTON J., CONNELL M., COPSEY T., COOPER J., COULSON A., CRAYTON M.,
 RA DEAR S., DU Z., DURBIN R., FAVELLO A., FULTON L., GARDNER A., GREEN P.,
 RA HAWKINS T., HILLIER L., JIER M., JOHNSTON L., JONES M., KERSHAW J.,
 RA KIRSTEN J., LAISTER N., LATREILLE P., LIGHTNING J., LLOYD C.,
 RA MCMURRAY A., MORTIMORE B., O'CALLAGHAN M., PARSONS J., PERCY C.,
 RA RIFEKEN L., ROOPRA A., SAUNDERS D., SHOWNKEEN R., SMALDON N., SMITH A.,
 RA SONNHAMMER E., STADEN R., SULSTON J., THIERRY-MIEG J., THOMAS K.,
 RA VAUDIN M., VAUGHAN K., WATERSTON R., WATSON A., WEINSTOCK L.,
 RA WILKINSON-SPROAT J., WOHLDMAN P.,
 RT "2.2 Mb of contiguous nucleotide sequence from chromosome III of C.
 RT elegans.";
 RL NATURE 368:32-38(1994).
 RN [2]

RP SEQUENCE FROM N.A.
 RC STRAIN-BRISTOL N2;
 RA PAULEY A., GATTUNG S.,
 RL SUBMITTED (FEB-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [3]
 RP SEQUENCE FROM N.A.
 RC STRAIN-BRISTOL N2;
 RA WATERSTON R.,
 RL SUBMITTED (FEB-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: U88173; G1825643; -.
 SQ SEQUENCE 1224 AA; 139752 MW; 81AEB3F9 CRC32;

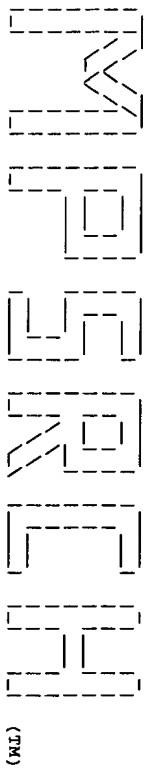
Query Match 58.8%; Score 57; DB 5; Length 1224;
 Best Local Similarity 41.7%; Pred. No. 4.36e+00;
 Matches 5; Conservative 3; Mismatches 4; Indels 0; Gaps 0;
 Db 456 EYCEEKMKKQ 467
 1:1:1:1:1:1
 QY 1 EICADPKQKWKQ 12

RESULT 30
 ID P70808 PRELIMINARY; PRT; 95 AA.
 AC P70808;
 DT 01-FEB-1997 (TREMBLREL. 02, CREATED)
 DT 01-FEB-1997 (TREMBLREL. 02, LAST SEQUENCE UPDATE)
 DT 01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
 DE ATP BINDING PROTEIN (FRAGMENT).
 GN FTSA.
 OS AZOTOBACTER VINELANDII.
 CC BACTERIA: PROTEOBACTERIA: GAMMA SUBDIVISION: AZOTOBACTERACEAE;
 CC AZOTOBACTER.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-DJ116;
 RA LI C.L., ERICKSON H.P.,
 RL SUBMITTED (AUG-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: U65939; G1518098; -.
 FT NON_TER 1
 SQ SEQUENCE 95 AA; 10655 MW; 1B803E4E CRC32;

Query Match 57.7%; Score 56; DB 2; Length 95;
 Best Local Similarity 33.3%; Pred. No. 6.70e+00;
 Matches 4; Conservative 4; Mismatches 4; Indels 0; Gaps 0;
 Db 81 DPCPGTQRFQ 92
 1:1:1:1:1:1
 QY 1 EICADPKQKWKQ 12

Search completed: Thu Apr 1 07:42:34 1999
 Job time : 32 secs.

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Msrch_pp protein - protein database search, using Smith-Waterman algorithm

Run on: Thu Apr 1 07:46:02 1999; MasPar time 2.83 Seconds

Tabular output not generated. 68,666 Million cell updates/sec

Title: >US-08-927-939-14
Description: (1-12) from US08927939.pep
Perfect Score: 101
Sequence: 1 EICLDPRKRWIQ 12

Scoring table: PAM 150
Gap 15

Searched: 131922 seqs, 16180660 residues

Post-processing: Minimum Match 0%
Listing first 100 summaries

Database:

a-geneseq32
1:part1 2:part2 3:part3 4:part4 5:part5 6:part6 7:part7
8:part8 9:part9 10:part10 11:part11 12:part12 13:part13
14:part14 15:part15 16:part16 17:part17 18:part18
19:part19 20:part20 21:part21 22:part22 23:part23
24:part24 25:part25 26:part26 27:part27 28:part28
29:part29

Statistics: Mean 18.874; Variance 63.668; scale 0.296

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description	Pred. No.
1	91	90.1	99	2	R06398 Human MCF precursor.	1.87e-02
2	88	87.1	66	24	W13598 Monocyte chemoattract.	3.92e-02
3	88	87.1	67	24	W13599 Monocyte chemoattract	3.92e-02
4	88	87.1	68	24	W13597 Monocyte chemoattract	3.92e-02
5	88	87.1	69	14	R87678 des(2-8) MCP-1.	3.92e-02
6	88	87.1	69	24	W13596 Monocyte chemoattract	3.92e-02
7	88	87.1	76	20	W09374 Monocyte chemoattract	3.92e-02
8	88	87.1	76	1	P90292 Peptide from human g1	3.92e-02
9	88	87.1	76	14	R87675 (28-Asp) MCP-1.	3.92e-02
10	88	87.1	76	10	R53398 Sense MCP-1.	3.92e-02
11	88	87.1	76	14	R87676 (24-Arg) MCP-1.	3.92e-02
12	88	87.1	76	5	R28660 MCP.	3.92e-02
13	88	87.1	76	14	R87677 (3-Ala) MCP-1.	3.92e-02
14	88	87.1	76	15	R87680 Monocyte chemoattract	3.92e-02
15	88	87.1	76	21	W11131 Mature human monocyte	3.92e-02
16	88	87.1	77	15	R86859 Mature MCP-1.	3.92e-02
17	88	87.1	99	14	R73914 Human monocyte chemo	3.92e-02
18	88	87.1	99	13	R70800 Chemoattractant prote	3.92e-02

19	88	87.1	99	2	P95387 Human monocyte chemo-	3.92e-02
20	88	87.1	99	5	R28663 MCP.	3.92e-02
21	84	83.2	29	4	R20237 NAF(44-72) peptide in	1.05e-01
22	84	83.2	39	22	W04515 Interleukin-8(34-72)	1.05e-01
23	84	83.2	67	7	R38087 Modified human interl	1.05e-01
24	84	83.2	67	7	R38086 Modified human interl	1.05e-01
25	84	83.2	68	7	R38085 Modified human interl	1.05e-01
26	84	83.2	68	7	R38083 Modified human interl	1.05e-01
27	84	83.2	68	7	R38084 Modified human interl	1.05e-01
28	84	83.2	69	7	R38081 Modified human interl	1.05e-01
29	84	83.2	69	7	R38082 Modified human interl	1.05e-01
30	84	83.2	71	27	W22675 Drol3+ chemokine beta	1.05e-01
31	84	83.2	72	11	R70183 Soluble interleukin-8	1.05e-01
32	84	83.2	72	1	R03615 Human neutrophil chem	1.05e-01
33	84	83.2	72	23	W41519 Neutrophil chemoatrac	1.05e-01
34	84	83.2	72	23	W25714 Mutant human IL-8, Y1	1.05e-01
35	84	83.2	72	23	W25708 Mutant human IL-8, S1	1.05e-01
36	84	83.2	72	23	W25701 Mutant human IL-8, R4	1.05e-01
37	84	83.2	72	23	W26204 Neutrophil-specific C	1.05e-01
38	84	83.2	72	23	W25713 Mutant human IL-8, F2	1.05e-01
39	84	83.2	72	26	P81838 Sequence of a synthe	1.05e-01
40	84	83.2	72	23	W25710 Mutant human IL-8, D4	1.05e-01
41	84	83.2	72	23	W25707 Mutant human IL-8, Y1	1.05e-01
42	84	83.2	72	23	W25709 Mutant human IL-8, V4	1.05e-01
43	84	83.2	72	20	R99803 Chemokine-like protei	1.05e-01
44	84	83.2	72	20	R99812 Chemokine-like protei	1.05e-01
45	84	83.2	72	20	R99806 Chemokine-like protei	1.05e-01
46	84	83.2	72	20	R99805 Chemokine-like protei	1.05e-01
47	84	83.2	72	1	P90913 Sequence of a synthe	1.05e-01
48	84	83.2	72	20	R99804 Chemokine-like protei	1.05e-01
49	84	83.2	72	22	W04516 Interleukin(1-72) pro	1.05e-01
50	84	83.2	72	7	R38080 Human neutrophil chem	1.05e-01
51	84	83.2	72	1	R03166 Human neutrophil-8	1.05e-01
52	84	83.2	72	17	R88057 Human interleukin-8	1.05e-01
53	84	83.2	73	1	P90078 Human neutrophil acti	1.05e-01
54	84	83.2	73	20	R99817 Chemokine-like protei	1.05e-01
55	84	83.2	73	20	R99818 Chemokine-like protei	1.05e-01
56	84	83.2	73	20	R99814 Interleukin-8.	1.05e-01
57	84	83.2	73	20	R99815 Chemokine-like protei	1.05e-01
58	84	83.2	73	20	R99816 Chemokine-like protei	1.05e-01
59	84	83.2	75	27	W22673 Bac 3 chemokine bet	1.05e-01
60	84	83.2	77	27	W22672 Bac 2 chemokine bet	1.05e-01
61	84	83.2	77	1	P90017 Human neutrophil acti	1.05e-01
62	84	83.2	77	3	R13168 [Ala IL-8]77 leukocy	1.05e-01
63	84	83.2	79	27	W22674 Drol1/2 chemokine bet	1.05e-01
64	84	83.2	82	27	W22671 Bac 1 chemokine bet	1.05e-01
65	84	83.2	82	24	W17665 Stem cell mobilising	1.05e-01
66	84	83.2	97	13	R70795 Interleukin-8/MNP-1.	1.05e-01
67	84	83.2	98	27	W22670 Human chemokine bet	1.05e-01
68	84	83.2	98	28	W30191 Monocyte chemoattract	1.05e-01
69	84	83.2	98	17	R93087 Human chemokine beta-	1.05e-01
70	84	83.2	99	2	P93631 Amino acid sequence o	1.05e-01
71	84	83.2	99	1	R05239 Human neutrophil chem	1.05e-01
72	83	82.2	72	23	W25711 Mutant human IL-8, L4	1.34e-01
73	83	82.2	76	5	R26580 Sequence of bovine p6	1.34e-01
74	83	82.2	99	5	R26581 Sequence of p6 precursor	1.34e-01
75	81	80.2	67	14	R73915 Human monocyte chemo	2.17e-01
76	81	80.2	72	23	W25706 Mutant human IL-8, R4	2.17e-01
77	81	80.2	72	23	W25702 Mutant human IL-8, L4	2.17e-01
78	81	80.2	99	13	R70801 Chemoattractant prote	2.17e-01
79	81	80.2	109	9	R24353 Cytokine encoded by c	2.17e-01
80	80	79.2	82	29	W44721 Amino acid sequence o	2.77e-01
81	80	79.2	89	12	R70994 Protein encoded by cd	2.77e-01
82	80	79.2	89	13	R75419 Human SDF-1-beta.	2.77e-01
83	80	79.2	93	13	R75420 Human SDF-1-beta.	2.77e-01
84	80	79.2	97	21	W00667 Paracra expressed ch	2.77e-01
85	80	79.2	97	24	W14950 Human eosinocyte CC t	2.77e-01
86	80	79.2	97	23	W10059 Human eosinocyte.	2.77e-01
87	79	78.2	97	23	W25712 Mutant human IL-8, L4	3.52e-01
88	76	75.2	18	4	R22353 iI8 receptor-interact	7.23e-01
89	76	75.2	23	11	R58625 Putative glycan bindi	7.23e-01
90	76	75.2	72	23	W25703 Mutant human IL-8, E4	7.23e-01
91	76	75.2	72	21	W11132 Human interleukin-8 u	7.23e-01

92	75	74.3	72.23	W25704	Mutant human IL-8, R4	9.18e-01
93	75	74.3	72.23	W25705	Mutant human IL-8, R4	9.18e-01
94	75	74.3	73.13	R70252	Endotoxin chemoattractant	9.18e-01
95	75	74.3	96.24	W14991	Guinea pig eosinocyte	9.18e-01
96	73	72.3	72.13	R70804	Chemoattractant MCP-2	1.48e+00
97	73	72.3	72.23	W12435	Chimeric interleukin-	1.48e+00
98	73	72.3	109.29	W42072	Human MC proprotein.	1.48e+00
99	73	72.3	109.26	W26555	Human beta-chemokine	1.48e+00
100	72	71.3	395.26	W23347	Novel murine CX3C	1.87e+00

ALIGNMENTS

RESULT 1
ID R06398 standard: protein: 99 AA.
AC R06398;
DE 14-DEC-1990 (first entry)
DE Human MCF precursor.
KM Monocyte chemotactic factor; antibacterial; antitumour; cancer.
OS Homo sapiens.
FH Key Location/Qualifiers
FT 24..99 /label-mature MCF
FT /note="Claim 1"
FT misc-difference 76 /label-A or T
PN WO9007863-A.
PD 26-JUL-1990.
PE 02-JAN-1990; U00004.
PR 01-JAN-1989; JP-000065.
PR 03-FEB-1989; JP-026438.
PA (USDC) US SEC OF COMMERCE.
PI Furutani Y, Fukui T, Junichi Y, Masaki Y, Matsushima K;
PI Oppenheim J;
DR WPI: 90-253802/33.
DR P-PSDB: R06398.
PT Human monocyte chemotactic factor type polypeptide and DNA
PT encoding it - useful as antibacterial and antitumour agents.
PS Claim 2: Page 25; 27pp; English.
CC The sequence was deduced from the DNA sequence determined from
CC three recombinant plasmids, pMCF7, pMCF25 and pMCF29 which
CC were isolated from a cDNA library prep. from RNA extracted from
CC human promyelocytic leukaemia cell line, HL-60 (ATCC CCL-240).
CC vectors. In plasmids pMCF7 and pMCF29 bases 105 and 226 were
CC T and G resp. in pMCF25 they were C and A resp. The AA at posn.
CC 76 of the precursor protein is therefore not determined and may be
CC either Ala or Thr. The protein may be produced by recombinant
CC DNA techniques in E.coli, and is useful as a drug for treatment of
CC certain bacterial infections and cancers.
SQ Sequence 99 AA;

Query Match 90.1%; Score 91; DB 2; Length 99;
Best Local Similarity 83.3%; Pred. No. 1.87e-02;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 73 eicxdkpdkwq 84
QY 1 EICLDPKQKWIQ 12

RESULT 2

ID W13598 standard: peptide: 66 AA.
AC W13598;
DE 07-NOV-1997 (first entry)
DE Monocyte chemoattractant protein analogue MCP-1 (10-76).
KM Truncated monocyte chemoattractant protein-1; inhibitor;
KM receptor binding; anti-inflammatory; basophil; lymphocyte; allergy;
KM chronic inflammatory disease; arthritis; arteriosclerosis;
KM lung disease.
OS Homo sapiens.
PN CA2152141-A.
PD 20-DEC-1996.
PF 19-JUN-1995; 152141.

PR 19-JUN-1995; CA-152141.
PA (LEWIS) LEWIS I.
PI Gong J, Lewis I;
DR WPI: 97-165844/16.
PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
PT lacks MCP-1 activity and inhibits receptor binding; useful as
PT anti-inflammatory agent
PS Disclosure: Page 5; 27pp; English.
CC The present sequence represents an analogue, MCP-1 (10-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-9 of MCP-1, acts as an antagonist of MCP-1
CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammatory sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 66 AA;

Query Match 87.1%; Score 88; DB 24; Length 66;
Best Local Similarity 83.3%; Pred. No. 3.92e-02;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 40 eicadpdkwq 51
QY 1 EICLDPKQKWIQ 12

RESULT 3
ID W13599 standard: peptide: 67 AA.
AC W13599;
DE 07-NOV-1997 (first entry)
DE Monocyte chemoattractant protein analogue MCP-1 (11-76).
KM Truncated monocyte chemoattractant protein-1; inhibitor;
KM receptor binding; anti-inflammatory; basophil; lymphocyte; allergy;
KM chronic inflammatory disease; arthritis; arteriosclerosis;
KM lung disease.
OS Homo sapiens.
PN CA2152141-A.
PD 20-DEC-1996.
PF 19-JUN-1995; 152141.
PR 19-JUN-1995; CA-152141.
PA (LEWIS) LEWIS I.
PI Gong J, Lewis I;
DR WPI: 97-165844/16.
PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
PT lacks MCP-1 activity and inhibits receptor binding; useful as
PT anti-inflammatory agent
PS Disclosure: Page 5; 27pp; English.
CC The present sequence represents an analogue, MCP-1 (11-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-10 of MCP-1, acts as an antagonist of MCP-1
CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammatory sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 67 AA;

Query Match 87.1%; Score 88; DB 24; Length 67;
Best Local Similarity 83.3%; Pred. No. 3.92e-02;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 41 eicadpdkwq 52

QY 1 EICLDPKQKMIQ 12

RESULT 4
ID W13597 standard; peptide: 68 AA.

AC W13597; 07-NOV-1997 (first entry)
DE Monocyte chemoattractant protein analogue MCP-1 (9-76).
KW Truncated monocyte chemoattractant protein-1; inhibitor;
KW receptor binding; anti-inflammatory; basophil; lymphocyte; allergy;
KW chronic inflammatory disease; arthritis; arteriosclerosis;
KW lung disease.
OS Homo sapiens.
PN CA2152141-A.
PD 20-DEC-1996.
PF 19-JUN-1995; 152141.
PR 19-JUN-1995; CA-152141.
PA (LEWIS/) LEWIS I.
PI Gong J, Lewis I;
DR WPI; 97-165844/16.
PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
PT lacks MCP-1 activity and inhibits receptor binding, useful as
PT anti-inflammatory agent
PS Claim 7; Page 5; 27pp; English.

CC The present sequence represents an analogue, MCP-1 (9-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-8 of MCP-1, acts as an antagonist of MCP-1
CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammation sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC providing 50% inhibition of binding at a 25:1 ratio or less, compared
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 68 AA;

Query Match 87.1%; Score 88; DB 24; Length 68;
Best Local Similarity 83.3%; Pred. No. 3.92e-02;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Tb 42 eicadpdkqkvq 53
QY 1 EICLDPKQKMIQ 12

RESULT 5
ID R87678 standard; protein: 69 AA.
AC R87678;
DE 21-FEB-1996 (first entry)
DE des(2-8) MCP-1.
KW monocyte chemoattractant protein; MCP-1; mutant; restenosis;
KW angioplasty.
OS Homo sapiens.
FH Key
FH modified_site 2.3

FT Location/Qualifiers
FT 2.3
FT /note="amino acids 2-8 of the native protein have
FT been deleted between these residues"

FT disulfide_bond 4..29
FT disulfide_bond 5..45
PN W09513295-A1.
PD 18-MAY-1995.
PF 07-NOV-1994; U12874.
PR 12-NOV-1993; US-152301.

PA (DAND) DANA FARBER CANCER INST INC.
PI Rollins B, Zhang YJ;
DR WPI; 95-215051/28.

PT Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are
PT capable of inhibiting the monocyte chemo-attractant activity of
PT endogenous MCP-1 and can be used to treat restenosis

PS Claim 4; Page 11; 22pp; English.

CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
CC that they inhibit the monocyte chemoattractant activity of endogenous
CC MCP-1, provided that the derivative has not been modified by the
CC substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
CC are: (1) substitution of 28-Tyr by aspartate; (2) substitution of 24 Arg
CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
CC acids 2-8. The present sequence is a specifically claimed human MCP-1
CC derivative based on the parent protein disclosed in Rollins, Molecular
CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
CC The peptides can be used to prevent restenosis, e.g. in patients
CC undergoing coronary artery angioplasty.
SQ Sequence 69 AA;

Query Match 87.1%; Score 88; DB 14; Length 69;
Best Local Similarity 83.3%; Pred. No. 3.92e-02;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 43 eicadpdkqkvq 54
QY 1 EICLDPKQKMIQ 12

RESULT 6
ID W13596 standard; peptide: 69 AA.

AC W13596;
DE 07-NOV-1997 (first entry)
DE Monocyte chemoattractant protein analogue MCP-1 (8-76).
KW Truncated monocyte chemoattractant protein-1; inhibitor;
KW receptor binding; anti-inflammatory; basophil; lymphocyte; allergy;
KW chronic inflammatory disease; arthritis; arteriosclerosis;
KW lung disease.
OS Homo sapiens.
PN CA2152141-A.
PD 20-DEC-1996.
PF 19-JUN-1995; 152141.
PR 19-JUN-1995; CA-152141.
PA (LEWIS/) LEWIS I.
PI Gong J, Lewis I;
DR WPI; 97-165844/16.

PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
PT lacks MCP-1 activity and inhibits receptor binding, useful as
PT anti-inflammatory agent
PS Claim 5; Page 5; 27pp; English.
CC The present sequence represents an analogue, MCP-1 (8-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-7 of MCP-1, acts as an antagonist of MCP-1
CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammation sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 69 AA;

Query Match 87.1%; Score 88; DB 24; Length 69;
Best Local Similarity 83.3%; Pred. No. 3.92e-02;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 43 eicadpdkqkvq 54
QY 1 EICLDPKQKMIQ 12

RESULT 7
ID W09374 standard; Protein: 76 AA.
AC W09374;
DE 21-MAR-1997 (first entry)
DE Monocyte Chemotactic protein 1.

KW Human; monocyte chemoattractant protein; antisense; inhibition;
KW mononuclear cell; lymphocyte; macrophage; smooth muscle cell;
OS Homo sapiens.
FH Key 1 Location/Qualifiers
FT misc_difference 1
FT misc_difference 51 /note= "encoded by codon CAG"
FT misc_difference 51 /note= "encoded by codon AUG"
FT misc_difference 65 /note= "encoded by codon CAC"
PM US5571713-A.
PD 05-NOV-1996.
PR 22-OCT-1992; 965678.
PR 22-OCT-1992; US-965678.
PR 27-MAY-1994; US-250958.
PA (UNMI) UNIV MICHIGAN.
PI Kunkel SL, Lyle LR, Strieter RM;
DR WPI: 96-505405/50.
DR N-PSDB: T48092.
PT Anti-sense Monocyte Chemoattractant Protein-1 oligo:nucleotide(s) -
PT useful for therapy or diagnosis of restenosis, etc.
PS Disclosure: Column 13-14; 16pp; English.
CC This is the amino acid sequence of the human monocyte chemoattractant
protein (MCP)-1, a member of the C-C chemokine family. MCP-1 is a potent
stimulator of monocyte chemotaxis and is produced by injured vascular
smooth cells thus attracting monocytes and macrophages which infiltrate
the injured area and release growth factor. This causes proliferation of
the vascular smooth cells resulting in restenosis. The gene sequence can
be used to generate antisense sequences e.g. T48093-7, which can be used
to inhibit in vitro MCP-1 prodn. by mononuclear cells e.g. lymphocytes or
macrophages, or smooth muscle cells, esp. in order to prevent vascular
restenosis.
SQ Sequence 76 AA:

Query Match 87.1%; Score 88; DB 20; Length 76;
Best Local Similarity 83.3%; Pred. No. 3.92e-02;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 50 elcadpdkqkxwg 61
||| |||||:|
QY 1 EICLDPKQKMIQ 12

RESULT 8
ID P90292 standard; peptide; 76 AA.
AC P90292;
DT 17-JAN-1990 (first entry)
DE Peptide from human glioma cell line U-105MG.
KW Glioma; leucocyte; chemotaxis; neoplasms.
OS Human.
FH Key 1 Location/Qualifiers
FT modified_site 1 /label= OTHER
FT /note= "pyroglutamic acid"
PM US7304234-A.
PD 20-JUL-1989.
PR 31-JAN-1989; 030423.
PR 31-JAN-1989; US-304234.
NA (USSH) US Dept. of Health and Human.
Yoshimura T; Robinson E; Appella E; Leonard E.
UR WPI: 89-263501/36.
PT New peptide with specific chemotactic activity for monocytes - isolated
from glioma or leucocyte cells, useful for treating infections and
neoplasms.
PS Disclosure: page 3; 46pp; English.
CC Peptide is derived from glioma cell line U-105MG (ATCC CRL9932) or from
leukocytes and has mol. wt. 8400. Used to treat infections and neoplasms.
SQ Sequence 76 AA:

Query Match 87.1%; Score 88; DB 1; Length 76;
Best Local Similarity 83.3%; Pred. No. 3.92e-02;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 50 elcadpdkqkxwg 61
||| |||||:|
QY 1 EICLDPKQKMIQ 12

RESULT 9
ID R87675 standard; protein; 76 AA.
AC R87675;
DT 21-FEB-1996 (first entry)
DE (28-Asp) MCP-1.
KW monocyte chemoattractant protein; MCP-1; mutant; restenosis;
OS Homo sapiens.
FH Key 1 Location/Qualifiers
FT modified_site 28
FT /note= "Tyr in the native sequence is replaced by Asp"
FT disulfide bond 11..36
FT disulfide bond 12..52
PM W09513295-A1.
PD 18-MAY-1995.
PR 07-NOV-1994; U12874.
PR 12-NOV-1993; US-152301.
PA (DAND) DANA FARBER CANCER INST INC.
PI Rollins B, Zhang YJ;
DR WPI: 95-215051/28.
PT Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are
PT capable of inhibiting the monocyte chemo-attractant activity of
PT endogenous MCP-1 and can be used to treat restenosis
PS Claim 3; Page 11; 22pp; English.
CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
CC that they inhibit the monocyte chemoattractant activity of endogenous
CC MCP-1, provided that the derivative has not been modified by the
CC substitution of 28-Tyr by Ieu and/or 30-Arg by Val. Preferred mutations
CC are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg
CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
CC acids 2-8. The present sequence is a specifically claimed human MCP-1
CC derivative based on the parent protein disclosed in Rollins, Molecular
CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
CC The peptides can be used to prevent restenosis, e.g. in patients
CC undergoing coronary artery angioplasty.
SQ Sequence 76 AA:

Query Match 87.1%; Score 88; DB 14; Length 76;
Best Local Similarity 83.3%; Pred. No. 3.92e-02;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 50 elcadpdkqkxwg 61
||| |||||:|
QY 1 EICLDPKQKMIQ 12

RESULT 10
ID R53398 standard; Protein; 76 AA.
AC R53398;
DT 15-DEC-1994 (first entry)
DE Sense MCP-1.
KW Antisense; RNA; DNA; monocyte chemotactic protein-1; MCP-1;
KW radionuclide; vascular restenosis; alpha; beta; emitting isotope;
KW diagnosis; monocytes; vascular injury.
OS Mammalian.
FH Key 1 Location/Qualifiers
FT misc_difference 1 /note= "Unspecified amino acid"
FT /note= "Unspecified amino acid"
PM W09409128-A.
PD 28-APR-1994.
PR 20-OCT-1993; U10074.
PR 22-OCT-1992; US-965678.
PA (MLCW) MALLINCKRODT MEDICAL INC.
PI Lyle LR;
DR WPI: 94-151314/18.
PT Anti-sense monocyte chemoattractant protein-1 oligo:nucleotide(s) and
peptide(s) - is used for inhibiting, treating or imaging areas of

PF vascular restenosis or potential restenosis
 PS Disclosure: Page 5; 42pp; English.
 CC The sequences given in R53598-99 represent sense and antisense
 CC monocytic chemotactic protein-1 (MCP-1) respectively. These
 CC oligonucleotides may be labelled with a radionuclide and use
 CC therapeutically for the treatment of vascular restenosis.
 CC Radiolabelled antisense MCP-1 compounds may be constructed using high
 CC energy alpha or beta emitting isotopes rather than the gamma
 CC emitters customarily used for diagnostic purposes. Antisense MCP-1
 CC compounds inactivate MCP-1 or inhibit production of MCP-1 so that
 CC monocytes are not attracted to the area of vascular injury and
 CC proliferation of vascular cells is inhibited.
 SQ Sequence 76 AA;

Query Match 87.1%; Score 88; DB 10; Length 76;
 Best Local Similarity 83.3%; Pred. No. 3.92e-02;
 Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
 Db 50 eicadpkqkvwg 61
 ||| |||||
 Qy 1 EICLDPKQKWIQ 12

RESULT 11
 ID R87676 standard; protein: 76 AA.
 AC R87676;
 DT 21-FEB-1996 (first entry)
 DE (24-Arg) MCP-1.
 KW monocytic chemoattractant protein; MCP-1; mutant; restenosis;
 KM angioplasty.
 OS Homo sapiens.
 FH Key
 FT modified_site 24 Location/Qualifiers
 FT disulfide_bond 11..36 /note="Arg in the native sequence is replaced by Phe"
 FT disulfide_bond 12..52
 PN W09513295-A1.
 PD 18-MAY-1995.
 PE 07-NOV-1994; U12874.
 PR 12-NOV-1993; US-152301.
 PA (DAND) DANA FARBER CANCER INST INC.
 PI Rollins B. Zhang YJ;
 PI WPI: 95-215051/28.
 DR Human monocytic chemo-attractant protein-1 (MCP-1) derivs. - are
 FT capable of inhibiting the monocytic chemo-attractant activity of
 PT endogenous MCP-1 and can be used to treat restenosis
 PS Claim 5; Page 11; 22pp; English.
 CC Monocytic chemoattractant protein-1 (MCP-1) derivatives are mutated such
 CC MCP-1, provided that the monocytic chemoattractant activity of endogenous
 CC substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
 CC are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg
 CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
 CC acids 2-8. The present sequence is a specifically claimed human MCP-1
 CC derivative based on the parent protein disclosed in Rollins, Molecular
 CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
 CC The peptides can be used to prevent restenosis, e.g. in patients
 CC undergoing coronary artery angioplasty.
 SQ Sequence 76 AA;

Query Match 87.1%; Score 88; DB 14; Length 76;
 Best Local Similarity 83.3%; Pred. No. 3.92e-02;
 Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
 Db 50 eicadpkqkvwg 61
 ||| |||||
 Qy 1 EICLDPKQKWIQ 12

RESULT 12
 ID R28660 standard; Protein: 76 AA.
 AC R28660;
 DT 24-MAR-1993 (first entry)

DE MCF.
 KW Plasmid; monocytic chemotactic factor; MCP; translation;
 KW termination; terminator; initiation; ribosome binding site;
 KW RBS; promoter; tryptophan; repressor.
 OS Synthetic.
 PN W09219737-A.
 PD 12-NOV-1992.
 PE 27-APR-1992; J00550.
 PR 09-MAY-1991; JP-135950.
 PA (DAIN) DAINIPPON PHARM CO LTD.
 PI Fukui T, Matsuo N, Yamada M, Yamagishi J;
 PI WPI: 92-398864/48.
 DR N-PSDB; Q30745-46.
 PT Prodn. of polypeptide(s) having monocytic chemotactic activity -
 PT using expression plasmids with E. coli elements and specific
 PT E. coli strains
 PS Claim 1; Page 48 + Page 36; 56pp; English.
 CC An expression plasmid, pHM483, for producing MCF(76) consisting
 CC of 76 amino acids was constructed. The prod. can be used for e.g.
 CC treating bacterial infectious diseases.
 SQ Sequence 76 AA;

Query Match 87.1%; Score 88; DB 5; Length 76;
 Best Local Similarity 83.3%; Pred. No. 3.92e-02;
 Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
 Db 50 eicadpkqkvwg 61
 ||| |||||
 Qy 1 EICLDPKQKWIQ 12

RESULT 13
 ID R87677 standard; protein: 76 AA.
 AC R87677;
 DT 21-FEB-1996 (first entry)
 DE (3-Ala) MCP-1.
 KW monocytic chemoattractant protein; MCP-1; mutant; restenosis;
 KM angioplasty.
 OS Homo sapiens.
 FH Key
 FT modified_site 3 Location/Qualifiers
 FT disulfide_bond 11..36 /note="Asp in the native sequence is replaced by Ala"
 FT disulfide_bond 12..52
 PN W09513295-A1.
 PD 18-MAY-1995.
 PE 07-NOV-1994; U12874.
 PR 12-NOV-1993; US-152301.
 PA (DAND) DANA FARBER CANCER INST INC.
 PI Rollins B. Zhang YJ;
 PI WPI: 95-215051/28.
 DR Human monocytic chemo-attractant protein-1 (MCP-1) derivs. - are
 FT capable of inhibiting the monocytic chemo-attractant activity of
 PT endogenous MCP-1 and can be used to treat restenosis
 PS Claim 6; Page 11; 22pp; English.
 CC Monocytic chemoattractant protein-1 (MCP-1) derivatives are mutated such
 CC MCP-1, provided that the monocytic chemoattractant activity of endogenous
 CC substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
 CC are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg
 CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
 CC acids 2-8. The present sequence is a specifically claimed human MCP-1
 CC derivative based on the parent protein disclosed in Rollins, Molecular
 CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
 CC The peptides can be used to prevent restenosis, e.g. in patients
 CC undergoing coronary artery angioplasty.
 SQ Sequence 76 AA;

Query Match 87.1%; Score 88; DB 14; Length 76;
 Best Local Similarity 83.3%; Pred. No. 3.92e-02;
 Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
 Db 50 eicadpkqkvwg 61

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OY      1 EICLDPKOKWIO 12

RESULT 14
ID R87680 standard; protein; 76 AA.
AC R87680;
DE Monocyte chemotactic activating factor for use as wound remedy.
KW Monocyte chemotactic activating factor; MCAF; wound remedy.
OS Homo sapiens.
PN MO9507710-A1.
PD 23-MAR-1995.
PF 13-SEP-1994; J01512.
PR 13-SEP-1993; JP-227385.
PI (TORA ) TORAY IND INC.
PI Matsushima K, Naruto M;
DR WPI: 95-131181/17.
PT Wound treatment using monocyte chemotactic factor - has potent
PS therapeutic effect on skin wounds and ulcers
CC The invention relates to a new remedy for curing wounds which, instead
CC of comprising a growth factor, comprises a monocyte chemotactic
CC activating factor (MCAF) or its variants or derivatives. The factor has
CC potent effect on skin wounds and ulcers. The present sequence is human
CC MCAF, the activity of which is exemplified as the new remedy.
SQ Sequence 76 AA;

Query Match      87.1%; Score 88; DB 15; Length 76;
Best Local Similarity 83.3%; Pred. No. 3.92e-02;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db      50 eicadpkyxwq 61
OY      1 EICLDPKOKWIO 12

RESULT 15
ID W11131 standard; protein; 76 AA.
AC W11131;
DE 10-JUN-1997 (first entry)
DE Mature human monocyte chemoattractant protein-1 (MCP-1).
KW MCP-1; mature chemotactant protein-1; cytokine; interleukin-8;
KW IL-8; neutrophil activating peptide; labelling; imaging; targeting;
KW radionuclide; infection; inflammation; neoplasm; atheromatous lesion;
KW restenosis.
OS Homo sapiens.
FH Key Location/Qualifiers
FT misc_difference 1
FT note="X- any amino acid"
PN US5605671-A.
PD 23-FEB-1997.
PF 05-OCT-1992; 956862.
PR 05-OCT-1992; US-956863.
PR 05-OCT-1992; US-956862.
PR 29-APR-1994; US-235659.
PA (MHCW ) MALLINCKRODT MEDICAL INC.
PA (UNMI ) UNIV MICHIGAN.
PI Kunkel SL, Lyle LR, Strieter RM;
DR WPI: 97-153541/14.
PT Radio:labelling neutrophil-activating peptide(s) - for imaging
PT targeted delivery of radioactive agent
PS Example 10; Column 19-20; 15pp; English.
CC W11131 represents mature human monocyte chemoattractant protein-1
CC (MCP-1). MCP-1 was radionuclide labelled and used in a method for
CC imaging a target site in vivo in an animal. Labelled MCP-1 was allowed
CC to accumulate at a target site (having MCP-1 receptors) in the animal
CC and detected so as to image the target site. Any Cys-Cys or Cys-Xaa-Cys
CC chemokine carrying either iodine-123 or iodine-131 can be used in the
CC method. Especially preferred is neutrophil activating peptide-2 (NAP-2)
CC which recognises interleukin-8 receptors and is labelled with
CC technetium-99m, indium-111, copper-62, rhenium-186 or rhenium-188.
CC The method can be used for imaging a site of infection, inflammation,

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CC neoplasm, atheromatous lesion or restenosis.
SQ Sequence 76 AA;

Query Match      87.1%; Score 88; DB 21; Length 76;
Best Local Similarity 83.3%; Pred. No. 3.92e-02;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db      50 eicadpkyxwq 61
OY      1 EICLDPKOKWIO 12

RESULT 16
ID R86859 standard; Protein; 77 AA.
AC R86859;
DE 20-MAR-1996 (first entry)
DE Mature MCP-1.
KW Antisense; monocyte chemotactic protein-1; MCP-1;
KW "C-C" family; chemoattractant cytokine; chemokine; stimulation;
KW monocyte; chemotaxis; vascular smooth muscle cell; macrophage;
KW proliferation; restenosis; balloon angioplasty.
OS Homo sapiens.
PN MO9519167-A1.
PD 20-JUL-1995.
PF 13-JAN-1995; U00605.
PR 14-JAN-1994; US-182917.
PA (MHCW ) MALLINCKRODT MEDICAL INC.
PI Lyle LR, Thomas-Miller B;
DR WPI: 95-263703/34.
DR N-PDB: T03528.
PT New anti-sense oligo:nucleotide(s) and peptide(s) for inhibiting
PT restenosis - are directed against C-C family cytokine(s) such as
PT monocyte chemotactic protein, opt. radio:labelled for therapy or
PT imaging
PS Disclosure; Page 5; 50pp; English.
CC This sequence represents the mature form of monocyte chemotactic
CC protein-1 (MCP-1). MCP-1 is a member of the "C-C" family of
CC chemoattractant cytokines or chemokines. It is a potent stimulator
CC of monocyte chemotaxis and has an extremely high degree of specificity
CC for this cell type. MCP-1 is produced by injured vascular smooth muscle
CC cells and attracts the monocytes and macrophages which infiltrate the
CC area, releasing growth factors and resulting in proliferation of vascular
CC smooth muscle and restenosis. Nucleic acid molecules which are antisense
CC to the MCP-1 mRNA may be used to inhibit translation of MCP-1 and so may
CC be useful for inhibiting vascular restenosis, patric. Following balloon
CC angioplasty or a related process. The molecule may be radiolabelled to
CC increase its therapeutic effect or for imaging areas of potential
CC restenosis.
SQ Sequence 77 AA;

Query Match      87.1%; Score 88; DB 15; Length 77;
Best Local Similarity 83.3%; Pred. No. 3.92e-02;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db      51 eicadpkyxwq 62
OY      1 EICLDPKOKWIO 12

RESULT 17
ID R73914 standard; protein; 99 AA.
AC R73914;
DE 05-DEC-1995 (first entry)
DE Human monocyte chemoattractant factor hMCP-1.
KW Human monocyte chemoattractant factor; hMCP-1; chemokine; vaccine;
KW meningitis related homologous antigenic sequence; MRHAs; RV-1;
KW immunoassay; diagnosis; treatment; prophylactic; bacterial.
OS Homo sapiens.
PN MO9509233-A.
PD 06-APR-1995.
PF 28-SEP-1994; CA0516.
PR 28-SEP-1993; US-127499.

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PA (SHAR/) SHARMA L. R.
 PA (VALS/) VAN ALSTYNE D.
 PI Sharma LR, Van Alstyne D;
 DR WPI: 95-147431/19.
 PT New peptide(s) and corresp. antibodies for the treatment of
 PT meningitis - the peptide(s) corresp. to homologous antigenic
 PT sites on bacterial and viral agents and on chemokine(s), used for
 PT detecting and preventing meningitis
 PS Claim 47; Fig 8/10; 98pp; English.
 CC R7394 is the chemokine Human monocyte chemoattractant factor hMCP-1.
 CC It contains the meningitis related antigenic sequences (MRHAs) claimed
 CC in R73895 and R73907, which are recognised by a monoclonal antibody
 CC from the hybridoma Rubella virus (RV)-1. The claimed MRHAs peptides
 CC may be used in immunoassays to diagnose the presence of bacterial
 CC and/or viral meningitis agents in a sample, or in prophylactic and
 CC therapeutic meningitis treatments. The peptides may also be used as
 CC vaccines against meningitis.
 CC NB: Identified by matching corresponding MRHAs peptides.
 SQ Sequence 99 AA;

Query Match 87.1%; Score 88; DB 14; Length 99;
 Best Local Similarity 83.3%; Pred. NO. 3.92e-02;
 Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 73 elcddpkqkvq 84
 ||| |||||:|
 QY 1 EICLDPKQKWIQ 12

RESULT 18
 ID R70800 standard; Protein: 99 AA.
 AC R70800;
 DT 29-AUG-1995 (first entry)
 DE Chemoattractant protein MCP-1.
 KM MCP-1; chemoattractant; heparanase; heparin; heparan sulfate;
 OS arthritits; restenosis; cancer; wound healing.
 OS Homo sapiens.
 PN WO9504158-A.
 PD 09-FEB-1995.
 PF 26-JUL-1994; U08207.
 PR 29-JUL-1993; US-099866.
 PR 13-OCT-1993; US-136117.
 PA (UPJO) UPJOHN CO.
 PI Hoogwerf AJ, Ledbetter SR;
 DR WPI: 95-082239/11.
 DR N-PSDB; Q85370.
 DR Screening for cpds. with anti-heparanase activity - by detecting
 PT inhibition of heparin or heparan sulphate degradation,
 PT potentially useful for treating arthritits, restenosis, cancer.
 PS Claim 13; Page 49; 60pp; English.
 CC Purified heparanases, prepared under reducing conditions and
 CC activated with transglutaminase, are given in R70786-804. Most
 CC are prepared by reverse transcription of mRNA from activated human
 CC leukocytes, then cloning of the cDNA into pVL1392 baculovirus
 CC vector, and expression of the cDNA into pVL1392 baculovirus
 CC glutathione and dithiothreitol.
 SQ Sequence 99 AA;

Query Match 87.1%; Score 88; DB 13; Length 99;
 Best Local Similarity 83.3%; Pred. NO. 3.92e-02;
 Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 73 elcddpkqkvq 84
 ||| |||||:|
 QY 1 EICLDPKQKWIQ 12

RESULT 19
 ID P95387 standard; protein: 99 AA.
 AC P95387;
 DT 25-JUL-1989 (first entry)
 DE Human monocyte chemo-attractant peptide-1.
 KM Human monocyte chemo-attractant peptide; inflammatory disease; neoplasms.

OS Homo sapiens.
 FH Key Location/Qualifiers
 FT protein 24..99
 FT /Product=MCP-1

PN US7330446-A.
 PD 25-JUL-1989.
 PF 30-MAR-1989; 330446.
 PR 30-MAR-1989; US-330446.
 PA (USSH) US Dept. Health and Human.
 PI Yoshimura T, Robinson EA, Appella E, Leonard EJ;
 DR WPI: 89-300683/41.
 DR N-PSDB; N91337.
 DT Human derived monocyte chemo-attractant peptide prods. - obtd. from human
 PT glioma cell line U-105MG or peripheral blood mononuclear leukocytes.
 PS Disclosure; fig 2; 66pp; English.
 CC This is a human-derived monocyte chemo-attractant peptide (MCP-1) sequence
 CC MCP-1 exhibits optimal chemotactic activity at a concn. of 1nM and has a
 CC mol. mass of c.a. 8,400 D. MCP-1 can be used for treating infection eg
 CC inflammatory disease, or for the control of neoplasms by accumulation of
 CC monocytes at the site of the infection. The corresp. DNA is obtd. by
 CC chemical synthesis, by screening reverse transcripts of mRNA from
 CC purified blood leukocytes or cell cultures of eg U-373 MG or KMG-5.
 SQ Sequence 99 AA;

Query Match 87.1%; Score 88; DB 2; Length 99;
 Best Local Similarity 83.3%; Pred. NO. 3.92e-02;
 Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 73 elcddpkqkvq 84
 ||| |||||:|
 QY 1 EICLDPKQKWIQ 12

RESULT 20
 ID R28663 standard; Protein: 99 AA.
 AC R28663;
 DT 24-MAR-1993 (first entry)
 DE MCF.
 KM plasmid; monocyte chemotactic factor; MCF; translation;
 KM termination; terminator; initiation; ribosome binding site;
 KM RBS; promoter; tryptophan; repressor.
 OS Synthetic.
 FH Key Location/Qualifiers
 FT peptide 1..23
 FT /label= sig_peptide
 FT protein 24..99
 FT /label= mat_protein
 PN WO9219737-A.
 PD 12-NOV-1992.
 PF 27-APR-1992; J00550.
 PR 09-MAY-1991; JP-135950.
 PA (DAIN) DAINIPPON PHARM CO LTD.
 PI Fukui T, Matsuo N, Yamada M, Yamagishi J;
 DR WPI: 92-396864/48.
 DR N-PSDB; Q30748.
 DR Prod. of polypeptide(s) having monocyte chemotactic activity -
 PT using expression plasmids with E. coli elements and specific
 PT E. coli strains
 PS Disclosure; Page 43-44; 56pp; English.
 CC An expression plasmid, pMCO76 for producing MCF(76) consisting
 CC of 76 amino acids was constructed. DNA encoding MCF(76) was
 CC prep. using a recombinant plasmid pMCF7.
 SQ Sequence 99 AA;

Query Match 87.1%; Score 88; DB 5; Length 99;
 Best Local Similarity 83.3%; Pred. NO. 3.92e-02;
 Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 73 elcddpkqkvq 84
 ||| |||||:|
 QY 1 EICLDPKQKWIQ 12

RESULT 21
ID R20237 standard; protein: 29 AA.
AC R20237;
DE NAF(44-72) peptide inhibitor of neutrophil activating factor.
KW bronchitis; neutrophil chemotaxis; ARNS.
OS Synthetic.
PN US3079228-A.
PM 07-JAN-1992.
PR 05-FEB-1990; 475658.
PS 05-FEB-1990; US-475658.
PA (TEXA) UNIV OF TEXAS SYST.
PI Cohen AB, Miller EJ, Nagao S, Carr FK;
DR WPI: 92-04103/05.
PT New peptide inhibitors of neutrophil activating factor - which
PT inhibit chemotaxis, for treating adult respiratory distress
PS syndrome and other inflammatory lesions caused by NAF
PM Claim 8; column 9; 11pp: English.
CC NAF(44-72) is a preferred peptide derived from NAF which is
CC antagonistic to NAF and has no chemotactic activity. It inhibited
CC NAF-induced migration by 34 per cent. When used with a second
CC preferred peptide, i.e. NAF(3-25) (see R20236) inhibition was 70
CC per cent.
SQ Sequence 29 AA;
Query Match 83.2%; Score 84; DB 4; Length 29;
Best Local Similarity 66.7%; Pred. No. 1.05e-01;
Matches 8; Conservative 4; Mismatches 0; Indels 0; Gaps 0;
DB 5 elcdlpgkenwvq 16
I:|||||:|
QY 1 EICLDPKQKMIQ 12

RESULT 22
ID W04515 standard; peptide: 39 AA.
AC W04515;
DE 30-JUL-1997 (first entry)
DE Interleukin-8(34-72) used in novel synthesis method.
KW Thioester; synthesis; ligation; catalysis; thiol; condensation;
KW link; beta-aminothioester; bond; amide; production; disulphide;
KW refolding; oxidation; interleukin 8; IL-8.
OS Synthetic.
PN W09634878-A1.
PM 07-NOV-1996.
PR 04-MAY-1995; U05668.
PS 04-MAY-1995; WO-U05668.
PA (SCRI) SCRIPPS RES INST.
PI Dawson PE, Kent SBH, Muir TW;
DR WPI: 96-506095/50.
PT Synthesis of protein by chemical ligation of unprotected peptide(s)
PT - by reaction of N-terminal Cys with C-terminal thioester and
PT spontaneous rearrangement of intermediate prod.
PM Example 3; Page 47; 61pp: English.
CC The present peptide, which has an amino-terminal cysteine residue,
CC was used in a novel synthesis method, comprising the ligation of a
CC 1st oligopeptide (OP) to a 2nd OP, end to end, to produce an OP
CC product. This comprises mixing the 1st and 2nd OP (which have a
CC carboxy-terminal thioester and an amino-terminal Cys with an
CC unoxidised SH side chain) in a solution containing a catalytic
CC thiol, condensing the terminal groups to form an intermediate OP,
CC in which components are linked by a beta-aminothioester bond and
CC rearranging the bond to give a product OP linked by an amide bond.
CC The method can be used for the production of full length proteins,
CC which can be made into native, disulphide containing proteins by
CC refolding and oxidation. The method also combines chemoselective,
CC unprotected, peptide reactions, with native peptide bond formation,
CC increasing the size of protein that can be made by chemical
CC synthesis.
SQ Sequence 39 AA;
Query Match 83.2%; Score 84; DB 22; Length 39;
Best Local Similarity 66.7%; Pred. No. 1.05e-01;

Matches 8; Conservative 4; Mismatches 0; Indels 0; Gaps 0;
DB 15 elcdlpgkenwvq 26
I:|||||:|
QY 1 EICLDPKQKMIQ 12

RESULT 23
ID R38087 standard; protein: 67 AA.
AC R38087;
DE 13-OCT-1993 (first entry)
DE Modified human interleukin-8 analogue (3-69).
KW Analogues; modified; neutrophil activators; antagonists; human;
KW competitive antagonist; IL-8; inflammation; treatment; chemotaxis;
KW activity; stimulation; inflammatory response.
OS Synthetic.
PN W09311159-A.
PM 10-JUN-1993.
PR 03-DEC-1992; CA0528.
PS 04-DEC-1991; US-801578.
PA (BIOM-) BIOMEDICAL RES CENT LTD.
PI Clark-Lewis I, Moser B;
DR WPI: 93-196997/24.
PT New interleukin-8 analogues modified in specified region - used as
PT neutrophil activators or for blocking effect of IL-8 on neutrophil(s)
PT for treatment of inflammation
PS Claim 23; Page 30; 47pp: English.
CC The sequence is that of an analogue of interleukin-8 (IL-8) comprising
CC IL-8 residues 3-69. It is able to bind neutrophils and act as a
CC competitive antagonist of IL-8, i.e. it can be used to treat
CC inflammation, e.g. by intravenous injection or oral admin. It can
CC act as a neutrophil activator and so can be used to stimulate an
CC inflammatory response.
SQ Sequence 67 AA;
Query Match 83.2%; Score 84; DB 7; Length 67;
Best Local Similarity 66.7%; Pred. No. 1.05e-01;
Matches 8; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

DB 46 elcdlpgkenwvq 57
I:|||||:|
QY 1 EICLDPKQKMIQ 12

RESULT 24
ID R38086 standard; protein: 67 AA.
AC R38086;
DE 13-OCT-1993 (first entry)
DE Modified human interleukin-8 analogue (6-72).
KW Analogues; modified; neutrophil activators; antagonists; human;
KW competitive antagonist; IL-8; inflammation; treatment; chemotaxis;
KW activity; stimulation; inflammatory response.
OS Synthetic.
PN W09311159-A.
PM 10-JUN-1993.
PR 03-DEC-1992; CA0528.
PS 04-DEC-1991; US-801578.
PA (BIOM-) BIOMEDICAL RES CENT LTD.
PI Clark-Lewis I, Moser B;
DR WPI: 93-196997/24.
PT New interleukin-8 analogues modified in specified region - used as
PT neutrophil activators or for blocking effect of IL-8 on neutrophil(s)
PT for treatment of inflammation
PS Claim 19; Page 29; 47pp: English.
CC The sequence is that of an analogue of interleukin-8 (IL-8) comprising
CC IL-8 residues 6-72. It is able to bind neutrophils and act as a
CC competitive antagonist of IL-8, i.e. it can be used to treat
CC inflammation, e.g. by intravenous injection or oral admin. It can
CC act as a neutrophil activator and so can be used to stimulate an
CC inflammatory response.
SQ Sequence 67 AA;
Query Match 83.2%; Score 84; DB 7; Length 67;

Best Local Similarity 66.7%; Pred. No. 1.05e-01;
Matches 8; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

Db 43 elcldpkenwvq 54
1:|||||:|
QY 1 EICLDPKQKMIQ 12

RESULT 25
ID R38085 standard; protein: 68 AA.
AC R38085;

DE 13-OCT-1993 (first entry)
DE Modified human interleukin-8 analogue (5-72).
KW Analogues; modified; neutrophil activators; antagonists; human;
KW competitive antagonist; IL-8; inflammation; treatment; chemotaxis;
KW activity; stimulation; inflammatory response.
OS Synthetic.

PN WO9311159-A.
PD 10-JUN-1993.
PE 03-DEC-1992; CA0528.
PR 04-DEC-1991; US-801578.
PA (BIOM-) BIOMEDICAL RES CENT LTD.
PI Clark-Lewis I, Moser B;
DR MPI; 93-196997/24.

PT New interleukin-8 analogues modified in specified region - used as
PT neutrophil activators or for blocking effect of IL-8 on neutrophil(s)
PT for treatment of inflammation

PS Claim 17; Page 29; 47pp; English.
CC The sequence is that of an analogue of interleukin-8 (IL-8) comprising
CC IL-8 residues 5-72. It is able to bind neutrophils and act as a
CC competitive antagonist of IL-8, i.e. it can be used to treat
CC inflammation, e.g. by intravenous injection or oral admin. It can
CC act as a neutrophil activator and so can be used to stimulate an
CC inflammatory response. It also has strong chemotaxis activity and
CC can be used to attract neutrophils to a diseased area.
SQ Sequence 68 AA;

Query Match 83.2%; Score 84; DB 7; Length 68;
Best Local Similarity 66.7%; Pred. No. 1.05e-01;
Matches 8; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

Db 44 elcldpkenwvq 55
1:|||||:|
QY 1 EICLDPKQKMIQ 12

RESULT 26
ID R38083 standard; protein: 68 AA.
AC R38083;

DE 13-OCT-1993 (first entry)
DE Modified human interleukin-8 analogue 1le5 (6-72).
KW Analogues; modified; neutrophil activators; antagonists; human;
KW competitive antagonist; IL-8; inflammation; treatment; chemotaxis;
KW activity; stimulation; inflammatory response.
OS Synthetic.

FH Key Location/Qualifiers
FT region 1
FT /note= "Leu5 -> Ile"
PN WO9311159-A.
PD 10-JUN-1993.
PE 03-DEC-1992; CA0528.
PR 04-DEC-1991; US-801578.
PA (BIOM-) BIOMEDICAL RES CENT LTD.
PI Clark-Lewis I, Moser B;
DR MPI; 93-196997/24.

PT New interleukin-8 analogues modified in specified region - used as
PT neutrophil activators or for blocking effect of IL-8 on neutrophil(s)
PT for treatment of inflammation
PS Claim 15; Page 29; 47pp; English.
CC The sequence is that of an analogue of interleukin-8 (IL-8) comprising
CC IL-8 residues 1le5 (6-72). It is able to bind neutrophils and act
CC as a competitive antagonist of IL-8, i.e. it can be used to treat
CC inflammation, e.g. by intravenous injection or oral admin. It can

CC act as a neutrophil activator and so can be used to stimulate an
CC inflammatory response.
SQ Sequence 68 AA;

Query Match 83.2%; Score 84; DB 7; Length 68;
Best Local Similarity 66.7%; Pred. No. 1.05e-01;
Matches 8; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

Db 44 elcldpkenwvq 55
1:|||||:|
QY 1 EICLDPKQKMIQ 12

RESULT 27
ID R38084 standard; protein: 68 AA.
AC R38084;

DE 13-OCT-1993 (first entry)
DE Modified human interleukin-8 analogue Gln5 (6-72).
KW Analogues; modified; neutrophil activators; antagonists; human;
KW competitive antagonist; IL-8; inflammation; treatment; chemotaxis;
KW activity; stimulation; inflammatory response.
OS Synthetic.

FH Key Location/Qualifiers
FT region 1
FT /note= "Leu5 -> Gln"
PN WO9311159-A.
PD 10-JUN-1993.
PE 03-DEC-1992; CA0528.
PR 04-DEC-1991; US-801578.
PA (BIOM-) BIOMEDICAL RES CENT LTD.
PI Clark-Lewis I, Moser B;
DR MPI; 93-196997/24.

PT New interleukin-8 analogues modified in specified region - used as
PT neutrophil activators or for blocking effect of IL-8 on neutrophil(s)
PT for treatment of inflammation

PS Claim 16; Page 29; 47pp; English.
CC The sequence is that of an analogue of interleukin-8 (IL-8) comprising
CC IL-8 residues Gln5 (6-72). It is able to bind neutrophils and act
CC as a competitive antagonist of IL-8, i.e. it can be used to treat
CC inflammation, e.g. by intravenous injection or oral admin. It can
CC act as a neutrophil activator and so can be used to stimulate an
CC inflammatory response.
SQ Sequence 68 AA;

Query Match 83.2%; Score 84; DB 7; Length 68;
Best Local Similarity 66.7%; Pred. No. 1.05e-01;
Matches 8; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

Db 44 elcldpkenwvq 55
1:|||||:|
QY 1 EICLDPKQKMIQ 12

RESULT 28
ID R38081 standard; protein: 69 AA.
AC R38081;

DE 13-OCT-1993 (first entry)
DE Modified human interleukin-8 analogue 14-72).
KW Analogues; modified; neutrophil activators; antagonists; human;
KW competitive antagonist; IL-8; inflammation; treatment; chemotaxis;
KW activity; stimulation; inflammatory response.
OS Synthetic.

PN WO9311159-A.
PD 10-JUN-1993.
PE 03-DEC-1992; CA0528.
PR 04-DEC-1991; US-801578.
PA (BIOM-) BIOMEDICAL RES CENT LTD.
PI Clark-Lewis I, Moser B;
DR MPI; 93-196997/24.

PT New interleukin-8 analogues modified in specified region - used as
PT neutrophil activators or for blocking effect of IL-8 on neutrophil(s)
PT for treatment of inflammation
PS Claim 9; Page 29; 47pp; English.

CC The sequence is that of an analogue of interleukin-8 (IL-8) comprising
CC IL-8 residues 4-72. It is able to bind neutrophils and act as a
CC competitive antagonist of IL-8, i.e. it can be used to treat
CC inflammation, e.g. by intravenous injection or oral admin. It can
CC act as a neutrophil activator and so can be used to stimulate an
CC inflammatory response.
SQ Sequence 69 AA:

Query Match 83.2%; Score 84; DB 7; Length 69;
Best Local Similarity 66.7%; Pred. No. 1.05e-01;
Matches 8; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

Db 45 elcidpkenwq 56
1:|||||:|:|
Qy 1 EICLDPKQKWIO 12

RESULT 29
ID R38082 standard; protein; 69 AA.
AC R38082;
DT 13-OCT-1993 (first entry)
DE Modified human interleukin-8 analogue Ala4Aa5 (6-72).
KW Analogues; modified; neutrophil activators; antagonists; human;
KW competitive antagonist; IL-8; inflammation; treatment; chemotaxis;
KW activity; stimulation; inflammatory response.
OS Synthetic.
FH Key Location/Qualifiers
FT region 1
FT region 2 /note= "Glu4 -> Ala"
FT region /note= "Leu5 -> Ala"
LN WO931159-A.
LN 10-JUN-1993.
PD 10-JUN-1993.
PF 03-DEC-1992; CA0528.
PR 04-DEC-1991; US-801578.
PA (BIOM-) BIOMEDICAL RES CENT LTD.
PI Clark-Lewis I, Moser B;
DR WPI: 93-196937/24.
PT New interleukin-8 analogues modified in specified region - used as
PT neutrophil activators or for blocking effect of IL-8 on neutrophil(s)
PT for treatment of inflammation
PS Claim 10: Page 29; 47pp: English.
CC The sequence is that of an analogue of interleukin-8 (IL-8) comprising
CC IL-8 residues Ala4Aa5 (6-72). It is able to bind neutrophils and act
CC as a competitive antagonist of IL-8, i.e. it can be used to treat
CC inflammation, e.g. by intravenous injection or oral admin. It can
CC act as a neutrophil activator and so can be used to stimulate an
CC inflammatory response.
SQ Sequence 69 AA:

Query Match 83.2%; Score 84; DB 7; Length 69;
Best Local Similarity 66.7%; Pred. No. 1.05e-01;
Matches 8; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

Db 45 elcidpkenwq 56
1:|||||:|:|
Qy 1 EICLDPKQKWIO 12

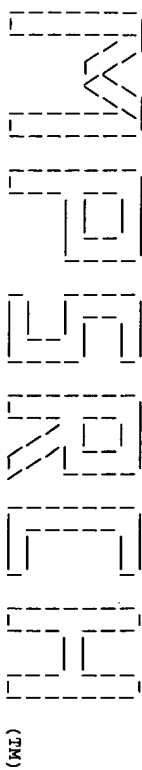
RESULT 30
ID W22675 standard; Protein; 71 AA.
AC W22675;
DT 19-MAR-1998 (first entry)
DE DROI3+ chemokine beta10 or monocyte chemotactic protein 4 variant.
KW Human; chemokine beta10; CK beta10; treatment; antagonist;
KW solid tumour; infection; autoimmune disease; asthma; antibody;
KW fibrotic disease; psoriasis; neurodegenerative disease;
KW wound healing; hematopoiesis regulation; gene therapy;
KW chromosome identification; monocyte chemotactic protein 4;
OS Homo sapiens.
OS Leukaemia; MCP-4; DROI3+ variant.
PN WO9731098-A1.
PD 28-AUG-1997.

PF 23-FEB-1996; U02598.
PR 23-FEB-1996; WO-U02598.
PA (HUMA-) HUMAN GENOME SCI INC.
PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
PI Parmelee D, White J;
DR WPI: 97-435153/40.
PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
PT protein 4 - useful to treat tumours, autoimmune disease, infection,
PT asthma and fibrosis
PS Example 11: Fig 5; 83pp: English.
CC The present sequence is human chemokine beta10 (CK beta10) or
CC monocyte chemotactic protein 4 (MCP-4) DROI3+ variant, which can
CC be used to treat patients deficient in CK beta10, while a CK beta10
CC antagonist can be used to reduce excessive levels of CK beta10. CK
CC beta10 can be used to treat leukaemia, solid tumours, chronic or
CC opportunistic infections, autoimmune diseases, asthma, fibrotic
CC diseases, psoriasis and neurodegenerative diseases. It also
CC promotes wound healing, regulates hematopoiesis and generates
CC antibodies. Labelled CK beta10 can be used to identify its cognate
CC receptor, while cells expressing the receptor can be used to screen
CC compounds for (ant)agonist activity. The antagonist can be used to
CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
CC infectious diseases, allergies, prostaglandin dependent fever and
CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
CC syndrome, lung inflammation and atherosclerosis. CK beta10 cDNA can
CC be used to isolate genes encoding similar peptides, in gene therapy
CC and for chromosome identification.
SQ Sequence 71 AA:

Query Match 83.2%; Score 84; DB 27; Length 71;
Best Local Similarity 75.0%; Pred. No. 1.05e-01;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 45 elcadpkekwq 56
||| |||:|:|
Qy 1 EICLDPKQKWIO 12

Search completed: Thu Apr 1 07:46:32 1999
Job time : 30 secs.



(TM)

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MSPcrh_pp protein - protein database search, using Smith-Waterman algorithm

Run on: Thu Apr 1 07:45:27 1999; MasPar time 3.43 Seconds

Tabular output not generated. 131.151 Million cell updates/sec

Title: >US-08-927-939-14

Description: (1-12) from US08927939.pep

Perfect Score: 101

Sequence: 1 EICLDPKQKRWIQ 12

Scoring table: PAM 150

Gap 15

Searched: 116738 segs, 37463448 residues

Post-Processing: Minimum Match 0%

Listing first 100 summaries

Database: p1r58

1:plrl 2:plrl 3:plrl 4:plrl

Statistics: Mean 25.334; Variance 37.630; scale 0.673

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description	Pred. No.
1	93	92.1	95	2	Interleukin-8 - dog	2.88e-07
2	93	92.1	101	2	Interleukin 8 - sheep	2.88e-07
3	93	92.1	101	2	Interleukin-8 - sheep	2.88e-07
4	93	92.1	103	2	Interleukin-8 precurs	2.88e-07
5	93	92.1	103	2	Interleukin-8 precurs	2.88e-07
6	90	89.1	101	2	Interleukin-8 - rabbit	1.30e-06
7	88	87.1	99	2	monocyte chemoattract	5.73e-06
8	87	86.1	99	2	monocyte chemoattract	5.73e-06
9	84	83.2	99	2	Interleukin-8 precurs	2.49e-05
10	84	83.2	101	2	Neutrophil attractant	2.49e-05
11	83	82.2	99	2	monocyte chemoattract	4.05e-05
12	83	82.2	99	2	monocyte chemoattract	4.05e-05
13	82	81.2	125	2	monocyte chemoattract	6.56e-05
14	81	80.2	109	2	monocyte chemoattract	1.06e-04
15	80	79.2	89	2	pre-B-cell growth-sti	1.71e-04
16	80	79.2	89	2	Interleukin-8 homolo	1.71e-04
17	80	79.2	93	2	cytokine SDF-1-beta	1.71e-04
18	80	79.2	93	2	cytokine - mouse	1.71e-04
19	79	78.2	99	2	monocyte chemoattract	2.76e-04
20	79	78.2	120	2	monocyte chemoattract	2.76e-04
21	77	76.2	97	2	ectatin - human	7.10e-04
22	75	74.3	96	2	ectatin precursor - g	1.81e-03
23	75	74.3	96	2	ectatin - rat	1.81e-03

24	74	73.3	92	2	IS2322	macrophage inflamma	2.88e-03
25	73	72.3	99	2	JC5295	monocyte chemoattract	4.56e-03
26	72	71.3	103	2	IS0417	RSV-induced protein -	7.21e-03
27	72	71.3	103	2	A26736	transformation-induc	7.21e-03
28	71	70.3	148	2	A30209	PDGF-inducible JE gly	1.14e-02
29	67	66.3	92	2	A32393	macrophage inflamma	6.80e-02
30	67	66.3	148	2	S07723	immediate-early serum	6.80e-02
31	65	64.4	91	1	A46539	monocyte chemoattract	1.63e-01
32	64	63.4	97	2	A48093	monocytic cytokine FI	2.52e-01
33	63	62.4	50	2	C60407	monocyte adherence-in	3.86e-01
34	63	62.4	92	1	A31767	macrophage inflamma	3.86e-01
35	63	62.4	92	2	A30574	macrophage inflamma	3.86e-01
36	63	62.4	93	2	B35673	LD78-beta protein pre	3.86e-01
37	63	62.4	120	2	JE0177	lymphocyte and monocy	3.86e-01
38	60	59.4	92	2	I46730	immune activation gen	1.37e+00
39	60	59.4	176	2	G65065	hypothetical protein	1.37e+00
40	59	58.4	85	2	C53387	regulatory protein ko	2.07e+00
41	59	58.4	91	1	A28815	monocyte chemoattract	2.07e+00
42	59	58.4	114	1	ETMSL	lymphotactin precurs	2.07e+00
43	59	58.4	201	1	VART	plasma retinol-bindin	2.07e+00
44	58	57.4	759	2	I49009	APRF - mouse	3.11e+00
45	58	57.4	770	2	A54444	DNA-binding protein A	3.11e+00
46	58	57.4	770	2	I49508	ISGF3 p1-related tra	3.11e+00
47	57	56.4	760	2	S55520	Chitin synthetase I -	4.67e+00
48	57	56.4	899	2	G02428	prohormone convertase	4.67e+00
49	57	56.4	915	2	B48225	probable protease c	4.67e+00
50	57	56.4	915	2	A48225	subtilisin-like prop	4.67e+00
51	57	56.4	915	2	JC6148	subtilisin-like prop	4.67e+00
52	56	55.4	281	2	S61201	hypothetical protein	6.97e+00
53	56	55.4	284	2	S13676	deoxyribonuclease I (6.97e+00
54	56	55.4	2875	1	RRVUTM	genome polyprotein -	6.97e+00
55	55	54.5	338	2	A38418	hypothetical protein	1.03e+01
56	55	54.5	916	2	A64678	jockey protein 2 - fr	1.03e+01
57	54	53.5	192	2	E71437	probable resistance g	1.53e+01
58	54	53.5	196	2	E64101	invasion protein - Ha	1.53e+01
59	54	53.5	449	2	A48939	cellulohydrolase 1-1	1.53e+01
60	54	53.5	627	2	C69637	DNA gyrase-like prote	1.53e+01
61	54	53.5	681	2	JX0338	rabphilin-3A - mouse	1.53e+01
62	54	53.5	684	2	I58166	rabphilin-3A - rat	1.53e+01
63	53	52.5	92	2	C30552	macrophage inflamma	2.25e+01
64	53	52.5	117	2	B44253	alveolar macrophage c	2.25e+01
65	53	52.5	117	2	S57175	hypothetical protein	2.25e+01
66	53	52.5	140	1	WMVZM3	HM3 protein - sheep p	2.25e+01
67	53	52.5	145	2	S76877	hypothetical protein	2.25e+01
68	53	52.5	178	2	F69804	hypothetical protein	2.25e+01
69	53	52.5	209	2	G69321	conserved hypothetical	2.25e+01
70	53	52.5	227	1	MNIVX9	nonstructural protein	2.25e+01
71	53	52.5	262	2	A26324	deoxyribonuclease I (2.25e+01
72	53	52.5	408	2	H65137	hypothetical 45.1 kd	2.25e+01
73	53	52.5	1053	2	D71466	probable ribonucleosi	2.25e+01
74	53	52.5	1827	1	UUHU	sucrose alpha-glucosi	2.25e+01
75	53	51.5	114	1	ETHUL	lymphotactin precurs	3.29e+01
76	52	51.5	187	2	C71317	hypothetical protein	3.29e+01
77	52	51.5	187	2	D42465	polarity suppression	3.29e+01
78	52	51.5	260	2	B26325	deoxyribonuclease I (3.29e+01
79	52	51.5	260	1	NDBOA	deoxyribonuclease I (3.29e+01
80	52	51.5	357	1	HMS37	MHC class I histocomp	3.29e+01
81	52	51.5	455	2	S56695	1-aminocyclopropane-1	3.29e+01
82	52	51.5	460	2	E64019	hypothetical protein	3.29e+01
83	52	51.5	470	2	S72279	conserved hypothetical	3.29e+01
84	52	51.5	485	2	S19677	1-aminocyclopropane-1	3.29e+01
85	52	51.5	485	2	A35516	1-aminocyclopropane-1	3.29e+01
86	52	51.5	575	2	S22595	hypothetical protein	3.29e+01
87	52	51.5	677	2	S65573	phosphate-specific tr	3.29e+01
88	52	51.5	768	2	A56334	rat guanine nucleotid	3.29e+01
89	52	51.5	905	2	A27410	plasma cell membrane	3.29e+01
90	52	51.5	925	2	A39216	transmembrane protein	3.29e+01
91	52	51.5	1118	2	S57833	hypothetical protein	4.80e+01
92	51	50.5	152	2	S38249	hypothetical protein	4.80e+01
93	51	50.5	200	2	F69047	u-plasminogen activat	4.80e+01
94	51	50.5	281	2	S39495	cytochrome P450 76A2	4.80e+01
95	51	50.5	505	2	S38534		4.80e+01
96	51	50.5	506	1	PIWLB4	L1 protein - bovine p	4.80e+01

97 51 50.5 532 1 IFBY beta-fructofuranosida 4.80e+01
 98 51 50.5 532 2 S27373 beta-fructofuranosida 4.80e+01
 99 51 50.5 1038 2 A71437 probable resistance 9 4.80e+01
 100 51 50.5 1584 2 S57161 hypothetical protein 4.80e+01

ALIGNMENTS

RESULT 1
 ENTRY JN0841 #type complete
 TITLE Interleukin-8 - dog
 ORGANISM #formal_name Canis lupus familiaris #common_name dog
 DATE 19-May-1994 #sequence_revision 19-May-1994 #text_change 12-Apr-1995

ACCESSIONS JN0841
 REFERENCE JN0841
 #authors Ishikawa, J.; Suzuki, S.; Hotta, K.; Hirota, Y.; Mizuno, S.; Suzuki, K.

#journal Gene (1993) 131:305-306
 #title Cloning of a canine gene homologous to the human interleukin-8-encoding gene.

#accession JN0841
 #molecule_type DNA

#residues 1-95 #label ISH

COMMENT This protein is a polymorphonuclear leukocytes chemotactic factor and is involved in the host defense function.

GENETICS
 #introns 22/1: 67/2
 CLASSIFICATION #superfamily beta-thromboglobulin
 SUMMARY #length 95 #molecular_weight 10611 #checksum 3157

Query Match 92.1%; Score 93; DB 2; Length 95;
 Best Local Similarity 75.0%; Pred. No. 2.88e-07;
 Matches 9; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Db 75 EVCLDPKRWQ 86
 1 EICLDPKRWQ 12

RESULT 2
 ENTRY S42496 #type complete
 TITLE Interleukin 8 - sheep
 ORGANISM #formal_name Ovis orientalis aries, Ovis ammon aries
 #common_name domestic sheep

DATE 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 08-Sep-1997

ACCESSIONS S42496
 REFERENCE S42496
 #authors Legastelois, I.; Greenland, T.; Arnaud, P.; Mornex, J.F.; Cordier, G.

#submission submitted to the EMBL Data Library, March 1994
 #description Nucleotide sequence of ovine interleukin 8 cDNA using polymerase chain reaction.

#accession S42496
 #status Preliminary

#molecule_type mRNA
 #residues 1-101 #label LBG

#cross-references EMBL:X78306; NID:g463253; PID:g463254

CLASSIFICATION #superfamily beta-thromboglobulin
 SUMMARY #length 101 #molecular_weight 11292 #checksum 294

Query Match 92.1%; Score 93; DB 2; Length 101;
 Best Local Similarity 75.0%; Pred. No. 2.88e-07;
 Matches 9; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Db 75 EVCLDPKRWQ 86
 1 EICLDPKRWQ 12

RESULT 3
 ENTRY I46997 #type complete

TITLE Interleukin-8 - sheep
 ORGANISM #formal_name Ovis sp. #common_name sheep
 DATE 21-Feb-1997 #sequence_revision 21-Feb-1997 #text_change 09-May-1997

ACCESSIONS I46997
 REFERENCE I46997
 #authors Seo, H.F.; Yoshimura, T.; Wood, P.R.; Colditz, I.G.

#journal Immunol. Cell Biol. (1994) 72:398-405
 #title Cloning, sequencing, expression and inflammatory activity in skin of ovine interleukin-8.

#cross-references MVID:95137691

#accession I46997
 #status Preliminary; translated from GB/EMBL/DBJ

#molecule_type mRNA

#residues 1-101 #label SEO

#cross-references GB:S74436; NID:g786590; PID:g786591

CLASSIFICATION #superfamily beta-thromboglobulin
 SUMMARY #length 101 #molecular_weight 11292 #checksum 294

Query Match 92.1%; Score 93; DB 2; Length 101;
 Best Local Similarity 75.0%; Pred. No. 2.88e-07;
 Matches 9; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Db 75 EVCLDPKRWQ 86
 1 EICLDPKRWQ 12

RESULT 4
 ENTRY A53096 #type complete
 TITLE Interleukin 8 precursor - pig
 ORGANISM #formal_name Sus scrofa domestica #common_name domestic pig
 DATE 02-Jun-1995 #sequence_revision 02-Jun-1995 #text_change 08-Sep-1997

ACCESSIONS A53096
 REFERENCE A53096

#authors Lin, G.; Pearson, A.E.; Scamurra, R.W.; Zhou, Y.; Baarsch, M.J.; Weiss, D.J.; Murtugha, M.P.

#journal J. Biol. Chem. (1994) 269:77-85
 #title Regulation of interleukin-8 expression in porcine alveolar macrophages by bacterial lipopolysaccharide.

#accession A53096

#status Preliminary

#molecule_type mRNA

#residues 1-103 #label LIN
 #cross-references GB:M86923; NID:g164520; PID:g164521

CLASSIFICATION #superfamily beta-thromboglobulin
 SUMMARY #length 103 #molecular_weight 11633 #checksum 8835

Query Match 92.1%; Score 93; DB 2; Length 103;
 Best Local Similarity 75.0%; Pred. No. 2.88e-07;
 Matches 9; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Db 75 EVCLDPKRWQ 86
 1 EICLDPKRWQ 12

RESULT 5
 ENTRY A44253 #type complete
 TITLE Alveolar macrophage chemotactic factor-I (AMCF-I)
 ORGANISM #formal_name Sus scrofa domestica #common_name domestic pig
 DATE 30-Apr-1993 #sequence_revision 18-Nov-1994 #text_change 23-Feb-1996

ACCESSIONS A44253
 REFERENCE A44253

#authors Goodman, R.B.; Foster, D.C.; Mathewes, S.L.; Osborn, S.G.; Kujiper, J.L.; Forstrom, J.W.; Martin, T.R.
 #journal Biochemistry (1992) 31:10483-10490
 #title Molecular cloning of porcine alveolar macrophage-derived

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neutrophil chemotactic factors I and II; identification of
porcine IL-8 and another Interleukin-alpha protein.
#cross-references MUID:93041741
#accession A44253
#status preliminary
#molecule_type mRNA; protein
#residues 1-103 #label GOO
#experimental_source alveolar macrophage
#note sequence extracted from NCBI backbone (NCBI:117415,
NCBI:117416)
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 103 #molecular-weight 11677 #checksum 8904

Query Match 92.1%; Score 93; DB 2; Length 103;
Best Local Similarity 75.0%; Pred. No. 2.88e-07;
Matches 9; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Db 75 EICLDPKRWQ 86
|:|||||:|:|
Oy 1 EICLDPKRWQ 12

RESULT 6
ENTRY 146871 #type complete
TITLE Interleukin-8; rabbit
ALTERNATE_NAMES #molecule_type mRNA
ORGANISM #formal_name Oryctolagus cuniculus #common_name domestic
rabbit
DATE 14-Feb-1997 #sequence_revision 14-Feb-1997 #text_change
09-Aug-1997
ACCESSION 146871
REFERENCE 146857
#authors Yoshimura, T.; Yuhki, N.
#journal J. Immunol. (1991) 146:3483-3488
#title Neutrophil attractant/activation protein-1 and monocyte
chemottractant protein-1 in rabbit: cDNA cloning and their
expression in spleen cells.
#cross-references MUID:91225489
#accession 146871
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-101 #label YOS
#cross-references GB:M57439; NID:g165552; PID:g165553
REFERENCE S13052
#authors Beaudien, B.C.; Collins, P.D.; Jose, P.J.; Totty, N.F.;
Hsuan, J.; Waterfield, M.D.; Williams, T.J.
#journal Biochem. J. (1990) 271:797-801
#title A novel neutrophil chemottractant generated during an
inflammatory reaction in the rabbit peritoneal cavity in
vivo. Purification, partial amino acid sequence and
structural relationship to interleukin 8.
#cross-references MUID:91058518
#accession S13052
#molecule_type protein
#residues 23-33, 'X', 35, 'X', 37-46, 'X', 48-49, 'I', 51-53 #label BEA
CLASSIFICATION #superfamily Beta-thromboglobulin
KEYWORDS cytokine
SUMMARY #length 101 #molecular-weight 11402 #checksum 1085

Query Match 89.1%; Score 90; DB 2; Length 101;
Best Local Similarity 75.0%; Pred. No. 1.30e-06;
Matches 9; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Db 75 EICLDPKRWQ 86
|:|||||:|:|
Oy 1 EICLDPKRWQ 12

RESULT 7
ENTRY A60299 #type complete
TITLE monocyte chemottractant protein 1 precursor - human
ALTERNATE_NAMES GDCF-1; glioma-derived monocyte chemotactic factor 1; MCAP;
MCP-1; monocyte chemotactic factor 1; monocyte secretory
protein; tumor-derived chemotactic factor
glioma-derived chemotactic factor 2 (GDCF-2)
#formal_name Homo sapiens #common_name man
20-Feb-1993 #sequence_revision 20-Feb-1993 #text_change
20-Mar-1998
ACCESSION A35474; S03339; I51841; A60299; A32300; A32396;
A34561; I57488; JCI096
REFERENCE A35474
#authors Shyy, Y.J.; Li, Y.S.; Kolattukudy, P.E.
#journal Biochem. Biophys. Res. Commun. (1990) 169:346-351
#title Structure of human monocyte chemotactic protein gene and its
regulation by TPA.
#cross-references MUID:90290466
#accession A35474
#molecule_type DNA
#residues 1-99 #label SHY
#cross-references GB:M37719; NID:g187447; PID:g487124
REFERENCE A33476
#authors Rollins, B.J.; Stier, P.; Ernst, T.; Wong, G.G.
#journal Mol. Cell. Biol. (1989) 9:4687-4695
#title The human homolog of the JE gene encodes a monocyte secretory
protein.
#cross-references MUID:90097880
#accession A33476
#molecule_type mRNA
#residues 1-99 #label ROL
#cross-references GB:M30816; GB:M31625; GB:M31626; NID:g188701;
PID:g386961
REFERENCE S03339
#authors Yoshimura, T.; Yuhki, N.; Moore, S.K.; Appella, E.; Lerman,
M.I.; Leonard, E.J.
#journal FEBS Lett. (1989) 244:487-493
#title Human monocyte chemottractant protein-1 (MCP-1). Full-length
cDNA cloning, expression in mitogen-stimulated blood
mononuclear leukocytes, and sequence similarity to mouse
competence gene JE.
#cross-references MUID:89153605
#accession S03339
#status not compared with conceptual translation
#molecule_type mRNA
#residues 1-99 #label YOS
#cross-references GB:X14768; NID:g34513; PID:g34514
#experimental_source glioma cell line U-105MC
REFERENCE I51841
#authors Yoshimura, T.; Leonard, E.J.
#journal Adv. Exp. Med. Biol. (1991) 305:47-56
#title Human monocyte chemottractant protein-1 (MCP-1).
#cross-references MUID:92095166
#accession I51841
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-99 #label YO2
#cross-references GB:S71513; NID:g240867; PID:g240868
REFERENCE A60299
#authors Bottazzi, B.; Colotta, F.; Sica, A.; Nobili, N.; Mantovani,
A.
#journal Int. J. Cancer (1990) 45:795-797
#title A chemottractant expressed in human sarcoma cells
(monocyte chemottractant protein-1/MCAP) is identical to
monocyte chemottractant protein-1/monocyte chemotactic and
activating factor (MCP-1/MCAF).
#accession A60299
#status not compared with conceptual translation
#molecule_type mRNA
#residues 1-99 #label BOT
REFERENCE A32300
#authors Furutani, Y.; Nomura, H.; Notake, M.; Oyama, Y.; Fukui, T.;
Yamada, M.; Larsen, C.G.; Openheim, J.J.; Matsushima, K.
#journal Biochem. Biophys. Res. Commun. (1989) 159:249-255
#title Cloning and sequencing of the cDNA for human monocyte
chemotactic and activating factor (MCAF).
#cross-references MUID:89165862
#accession A32300
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##status      not compared with conceptual translation
##molecule_type mRNA
##residues 1-99 ##label FUR
##cross-references GB:M24545; NID:9187434; PID:9307163
REFERENCE
#authors      Robinson, E.A.; Yoshimura, T.; Leonard, E.J.; Tanaka, S.;
#journal      Griffin, P.R.; Shabanowitz, J.; Hunt, D.F.; Appella, E.
#title        Proc. Natl. Acad. Sci. U.S.A. (1989) 86:1850-1854
#journal      Complete amino acid sequence of a human monocyte
#title        Chemotactant, a putative mediator of cellular immune
#cross-references MUID:89184525
#accession    A32396
##molecule_type protein
##residues 'X', 25-99 ##label ROB
REFERENCE
#authors      Decock, B.; Conings, R.; Lenaerts, J.P.; Billiau, A.; Van
#journal      Damme, J.
#title        Biochem. Biophys. Res. Commun. (1990) 167:904-909
#journal      Identification of the monocyte chemotactic protein from human
#title        osteosarcoma cells and monocytes: detection of a novel
#cross-references MUID:90211336
#accession    A34561
##molecule_type protein
##residues 29-33, 'XX', 36-52; 82-92 ##label DEC
REFERENCE
#authors      Li, Y.S.; Shyy, Y.J.; Wright, J.G.; Valente, A.J.; Cornhill,
#journal      J.F.; Kolattukudy, P.E.
#title        Mol. Cell. Biochem. (1993) 126:61-68
#journal      The expression of monocyte chemotactic protein (MCP-1) in
#title        human vascular endothelium in vitro and in vivo.
#cross-references MUID:94150478
#accession    I57488
##status      translated from GB/EMBL/DBJ
##molecule_type mRNA
##residues 1-99 ##label LIX
##cross-references GB:S69738; NID:9545464; PID:9545465
REFERENCE
#authors      Ye, Q.N.; Su, G.F.; Yuan, Y.; Huang, C.F.
#journal      Chinese J. Microbiol. Immunol. (1994) 14:29-32
#title        The PCR, cloning and sequencing of human monocyte
#title        chemotactant protein-1 (MCP-1) gene.
#accession    JCI1096
##molecule_type mRNA
##residues 24-28, 'Q', 30-99 ##label YEO
GENETICS
#gene         GDB:SCYA2
#cross-references GDB:125279; OMIM:158105
#map_position 17q11.2-17q12
CLASSIFICATION
#superfamily macrophage inflammatory protein
KEYWORDS      cytokine; glycoprotein; inflammation; pyroglyutamic acid
FEATURE
1-23          #domain signal sequence #status predicted #label SIG\
24-99         #product monocyte chemotactant protein 1 #status
29-99         #experimental #label MAT\
24            #status experimental #label MAT2\
24            #modified_site pyrrolidone carboxylic acid (Gln) (1n
37            #mature form) #status experimental\
37            #binding_site carbohydrate (Asn) (covalent) #status
37            predicted
SUMMARY
#length 99 #molecular-weight 11025 #checksum 7984
Query Match      87.1%; Score 88; DB 2; Length 99;
Best Local Similarity 83.3%; Pred. No. 3,50e-06;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
Db 73 EICADPKOKWQ 84
OY 1 EICADPKOKWQ 12

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RESULT      8
ENTRY       JC2136 #type complete
ORGANISM    monocyte chemotactant protein-1 precursor - pig
TITLE       #formal_name Sus scrofa domestica #common_name domestic pig
DATE        30-Sep-1993 #sequence_revision 20-Aug-1994 #text_change
08-Sep-1997
ACCESSIONS  JC2136; S57498
REFERENCE    JC2136
#authors     Hosang, K.; Knoke, I.; Klaudiny, J.; Wempe, F.; Wutke, W.;
#journal     Scheit, K.H.
#title       Biochem. Biophys. Res. Commun. (1994) 199:962-968
#journal     Porcine luteal cells express monocyte chemotactant
#title       protein-1 (MCP-1): Analysis by polymerase chain reaction
#accession   and cDNA cloning.
#accession   JC2136
##molecule_type mRNA
##residues 1-99 ##label HOS
REFERENCE    S57497
#authors     Zach, O.
#journal     submitted to the EMBL Data Library, July 1994
#accession   S57498
#status      preliminary
##molecule_type mRNA
##residues 1-99 ##label ZAC
##cross-references EMBL:X79416; NID:9872312; PID:9872313
CLASSIFICATION
#superfamily macrophage inflammatory protein
KEYWORDS     glycoprotein
FEATURE
1-23         #domain signal sequence #status predicted #label SIG\
24-99        #product monocyte chemotactant protein-1 #status
94           #predicted #label MAT\
94           #binding_site carbohydrate (Asn) (covalent) #status
94           predicted
SUMMARY
#length 99 #molecular-weight 10976 #checksum 9768
Query Match      86.1%; Score 87; DB 2; Length 99;
Best Local Similarity 75.0%; Pred. No. 5,73e-06;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
Db 73 EICADPKOKWQ 84
OY 1 EICADPKOKWQ 12
RESULT      9
ENTRY       A37034 #type complete
TITLE       interleukin-8 precursor - human
ALTERNATE_NAMES
beta-thromboglobulin-like protein; fibroblast-derived
neutrophil-activating factor alpha; lung carcinoma-derived
chemotaxin; lymphocyte-derived neutrophil-activating
factor; monocyte-derived neutrophil chemotactic factor;
monocyte-derived neutrophil-activating factor
ORGANISM    #formal_name Homo sapiens #common_name man
DATE        08-Dec-1992 #sequence_revision 08-Dec-1992 #text_change
13-Sep-1998
ACCESSIONS  A37034; JI0041; A32791; S37634; PI0107; A28598; A27488;
A39960; A60601; A60591; S15827; S04216; A60567; A60647;
S15417; S03575; I54560; I55922; I37902; S67519
REFERENCE    A37034
#authors     Mukaida, N.; Shiroo, M.; Matsushima, K.
#journal     J. Immunol. (1989) 143:1366-1371
#title       Genomic structure of the human monocyte-derived neutrophil
#title       chemotactic factor IL-8.
#accession   MUID:89309826
##molecule_type DNA
#accession   A37034
##residues 1-99 ##label MKK
##cross-references GB:M28130; NID:9186367; PID:9186368
#note        the authors failed to translate the last thirty-six
#note        nucleotides of the second exon
REFERENCE    JI0041
Matsushima, K.; Morishita, K.; Yoshimura, T.; Lavu, S.;
Kobayashi, Y.; Lew, W.; Appella, E.; Kung, H.F.; Leonard,

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#journal      E.J.; Oppenheim, J.J.
#title        J. Exp. Med. (1988) 167:1883-1893
#cross-references EMBL:167:1883-1893
#accession    J00041
#molecule_type mRNA
#residues     1-99 #label MAL
#cross-references EMBL:Y00787; NID:934518; PID:934519
#note         the sequence shows similarity to several
               platelet-derived factors, a v-src-induced protein, a
               growth-regulated gene product (gro), and an
               IFN-gamma-inducible protein

REFERENCE
#authors      Kowalski, J.; Denhardt, D.T.
#journal      Mol. Cell. Biol. (1989) 9:1946-1957
#title        Regulation of the mRNA for monocytic-derived
               neutrophil-activating peptide in differentiating HL60
               promyelocytes.
#cross-references EMBL:89313739
#accession    A32791
#molecule_type mRNA
#residues     1-99 #label KOM
#cross-references GB:M26383; NID:9188627; PID:9188628

REFERENCE
#authors      King, C.H.; Gordon, G.S.; Konieczkowski, M.; Sedor, J.R.
#journal      Submitted to the EMBL Data Library, February 1992
#title        S37634
#status       preliminary
#molecule_type mRNA
#residues     1-97 #label KTN
#cross-references EMBL:Z11686; NID:933958; PID:933959

REFERENCE
#authors      Suzuki, K.; Miyasaka, H.; Ota, H.; Yamakawa, Y.; Tagawa, M.;
               Kuramoto, A.; Mizuno, S.
#journal      J. Exp. Med. (1989) 169:1895-1901
#title        Purification and partial primary sequence of a chemotactic
               protein for polymorphonuclear leukocytes derived from human
               lung giant cell carcinoma L065C cells.
#cross-references EMBL:89279141
#accession    P10107
#molecule_type protein
#residues     23-32, 'X', '35', 'X', '37-52', 'L', '54' #label SUZ
#experimental_source lung giant cell carcinoma L065C

REFERENCE
#authors      Gregory, H.; Young, J.; Schroeder, J.M.; Mrowietz, U.;
               Christophers, E.
#journal      Blochem. Biophys. Res. Commun. (1988) 151:883-890
#title        Structure determination of a human lymphocyte derived
               neutrophil activating peptide (LYNAP).
#cross-references EMBL:88162914
#accession    A28598
#molecule_type protein
#residues     28-99 #label GRE

REFERENCE
#authors      Walz, A.; Peveri, P.; Aschauer, H.; Baggiolini, M.
#journal      Blochem. Biophys. Res. Commun. (1987) 149:755-761
#title        Purification and amino acid sequencing of NAF, a novel
               neutrophil-activating factor produced by monocytes.
#cross-references EMBL:88106502
#accession    A27488
#molecule_type protein
#residues     28-59 #label WAL

REFERENCE
#authors      Yoshimura, T.; Matsushima, K.; Tanaka, S.; Robinson, E.A.;
               Appella, E.; Oppenheim, J.J.; Leonard, E.J.
#journal      Proc. Natl. Acad. Sci. U.S.A. (1987) 84:9233-9237
#title        Purification of a human monocyte-derived neutrophil
               chemotactic factor that has peptide sequence similarity to
               other host defense cytokines.
#cross-references EMBL:88097462
#accession    A39960

#molecule_type protein
#residues     28-69 #label YOS

REFERENCE
#authors      Schroeder, J.M.; Sticherling, M.; Henneicke, H.H.; Preissner,
               W.C.; Christophers, E.
#journal      J. Immunol. (1990) 144:2223-2232
#title        IL-1alpha or tumor necrosis factor-alpha stimulate release of
               three NAP-1/IL-8-related neutrophil chemotactic proteins in
               human dermal fibroblasts.
#cross-references EMBL:90187866
#accession    A60401
#molecule_type protein
#residues     23-32 #label SCH
#experimental_source dermal fibroblasts
#note         a minor component of this material (15%) includes an
               additional two amino acids at the amino end

REFERENCE
#authors      Van Damme, J.; Decock, B.; Conings, R.; Lenaerts, J.P.;
               Opdenacker, G.; Billiau, A.
#journal      Eur. J. Immunol. (1989) 19:1189-1194
#title        The chemotactic activity for granulocytes produced by virally
               infected fibroblasts is identical to monocyte-derived
               interleukin 8.
#accession    A60591
#molecule_type protein
#residues     23-33, 'X', '35', 'X', '37-42' #label VAN

REFERENCE
#authors      Nakagawa, H.; Hatakeyama, S.; Ikesue, A.; Miyai, H.
#journal      FEBS Lett. (1991) 282:412-414
#title        Generation of interleukin-8 by plasmin from
               AVPR-interleukin-8, the human fibroblast-derived
               neutrophil chemotactic factor.
#cross-references EMBL:91243843
#accession    S15827
#molecule_type protein
#residues     23-33, 'X', '35', 'X', '37-47' #label FEB

REFERENCE
#authors      Van Damme, J.; Van Beeumen, J.; Conings, R.; Decock, B.;
               Billiau, A.
#journal      Eur. J. Biochem. (1989) 181:337-344
#title        Purification of granulocyte chemotactic peptide/interleukin-8
               reveals N-terminal sequence heterogeneity similar to that
               of beta-thromboglobulin.
#cross-references EMBL:89231715
#accession    S04216
#molecule_type protein
#residues     21-67 #label VA2

REFERENCE
#authors      Yoshimura, T.; Robinson, E.A.; Appella, E.; Matsushima, K.;
               Showalter, S.D.; Skeel, A.; Leonard, E.J.
#journal      Mol. Immunol. (1989) 26:87-93
#title        Three forms of monocyte-derived neutrophil chemotactic factor
               (MDNCF) distinguished by different lengths of the
               amino-terminal sequence.
#accession    A60567
#molecule_type protein
#residues     21-33, 'X', '35', 'X', '37-47' #label YO2
#note         the forms starting from positions 21, 23, and 28
               represented 8%, 47%, and 45%, respectively, of total
               interleukin-8

REFERENCE
#authors      Van Damme, J.; Van Beeumen, J.; Opdenacker, G.; Billiau, A.
#journal      J. Exp. Med. (1988) 167:1364-1376
#title        A novel, NH-2-terminal sequence-characterized human monokine
               possessing neutrophil chemotactic, skin-reactive, and
               granulocytosis-promoting activity.
#accession    A60847
#molecule_type protein
#residues     28-47 #label VA3

REFERENCE
#authors      Car, B.D.; Baggiolini, M.; Walz, A.
#journal      Biochem. J. (1991) 275:581-584
#title        Formation of neutrophil-activating peptide 2 from

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platelet-derived connective-tissue-activating peptide III
by different tissue proteinases.
#cross-references M01D:91248085
#accession S15417
#status preliminary
#molecule-type protein
#residues 28-99 #label CAR

REFERENCE
#authors Golds, E.E.; Mason, P.; Nyirkos, P.
#journal Biochem. J. (1989) 259:585-588
#title Inflammatory cytokines induce synthesis and secretion of gro protein and a neutrophil chemotactic factor but not beta-2-microglobulin in human synovial cells and fibroblasts

#cross-references M01D:89246368
#accession S03975
#molecule-type protein
#residues 23-46 #label GOL

REFERENCE
#authors Hotta, K.; Hayashi, K.; Ishikawa, J.; Tagawa, M.; Hashimoto, K.; Mizuno, S.; Suzuki, K.
#journal Immunol. Lett. (1990) 24:165-170
#title Coding region structure of interleukin-8 gene of human lung giant cell carcinoma IJ65C cells that produce LUCP/interleukin-8: homogeneity in interleukin-8 genes.
#cross-references M01D:90346419

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Note: remainder of annotations omitted.

Query Match 83.2%; Score 84; DB 2; Length 99;
Best Local Similarity 66.7%; Pred. No. 2.49e-05;
Matches 8; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

Db 75 ELCADPKKRWQ 86
1:|||||:1:1
QY 1 EICLDPKQKMIQ 12

RESULT 10
ENTRY 148148 #type complete
TITLE Neutrophil attractant protein-1 - guinea pig
ORGANISM #formal_name Cavia porcellus #common_name guinea pig
DATE 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 23-Feb-1997
ACCESSIONS 148148
REFERENCE 148148
#authors Yoshimura, T.; Johnson, D.G.
#journal J. Immunol. (1993) 151:6225-6236
#title cDNA cloning and expression of guinea pig neutrophil attractant protein-1 (NAP-1): NAP-1 is highly conserved in guinea pig

#cross-references M01D:94065176
#accession 148148
#status preliminary; translated from GB/EMBL/DBJ
#molecule-type DNA
#residues 1-101 #label RES
#cross-references GB:L04986; NID:g459764; PID:g459765

GENETICS
#gene NAP-1
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 101 #molecular-weight 11414 #checksum 2363

Query Match 83.2%; Score 84; DB 2; Length 101;
Best Local Similarity 66.7%; Pred. No. 2.49e-05;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 75 QLCADPKKRWQ 86
1:|||||1:1:1
QY 1 EICLDPKQKMIQ 12

RESULT 11
ENTRY A39296 #type complete

TITLE monocyte chemoattractant protein 1 precursor - bovine
ALTERNATE_NAMES monocyte chemotactic factor 1; seminal plasma protein P6
ORGANISM #formal_name Bos primigenius taurus #common_name cattle
DATE 03-Aug-1992 #sequence_revision 03-Aug-1992 #text_change 31-Oct-1997
ACCESSIONS A39296; B39296
REFERENCE A39296
#authors Wempe, F.; Henschen, A.; Scheit, K.H.
#journal DNA Cell Biol. (1991) 10:671-679
#title Gene expression and cDNA cloning identified a major basic protein constituent of bovine seminal plasma as bovine monocyte-chemoattractant protein-1 (MCP-1).
#cross-references M01D:92096117
#accession A39296
#molecule-type mRNA
#residues 1-99 #label WEM
#cross-references GB:M84602; GB:M85264; NID:g163394; PID:g163395
#accession B39296
#molecule-type protein
#residues 50-68,'X',70-74,'X',76 #label W62
#experimental_source seminal vesicle
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS glycoprotein
FEATURE 1-23
24-99 #domain signal sequence #status predicted #label SIG\
#product monocyte chemoattractant protein 1 #status predicted
94 #binding_site carbohydrate (Asn) (covalent) #status predicted

SUMMARY #length 99 #molecular-weight 11114 #checksum 9401

Query Match 82.2%; Score 83; DB 2; Length 99;
Best Local Similarity 73.0%; Pred. No. 4.05e-05;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 73 ELCADPKKRWQ 84
1:|||||:1:1
QY 1 EICLDPKQKMIQ 12

RESULT 12
ENTRY JC2336 #type complete
TITLE monocyte chemoattractant protein-1 - bovine
ORGANISM #formal_name Bos primigenius indicus #common_name zebu cattle
DATE 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change 03-May-1996
ACCESSIONS JC2336
REFERENCE JC2336
#authors Wempe, F.; Kuhlmann, J.K.; Scheit, K.H.
#journal Biochem. Biophys. Res. Commun. (1994) 202:1272-1279
#title Characterization of the bovine monocyte chemoattractant protein-1 gene.
#accession JC2336
#molecule-type protein
#residues 1-99 #label WEM

GENETICS
#gene MCP-1
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 99 #molecular-weight 11114 #checksum 9401

Query Match 82.2%; Score 83; DB 2; Length 99;
Best Local Similarity 75.0%; Pred. No. 4.05e-05;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 73 ELCADPKKRWQ 84
1:|||||:1:1
QY 1 EICLDPKQKMIQ 12

RESULT 13
ENTRY I46857 #type complete
TITLE monocyte chemoattractant protein-1 - rabbit

ORGANISM #formal_name Oryctolagus cuniculus #common_name domestic rabbit
DATE 14-Feb-1997 #sequence_revision 14-Feb-1997 #text_change 09-May-1997
ACCESSIONS 146857
REFERENCE 146857
#authors Yoshimura, T.; Yuhki, N.
#journal J. Immunol. (1991) 146:3483-3488
#title Neutrophil attractant/activation protein-1 and monocyte chemoattractant protein-1 in rabbit: cDNA cloning and their expression in spleen cells.
#cross-references M01D:91225489
#accession 146857
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-125 #label YOS
#cross-references GB:M57440; NID:9165469; PID:9165470
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 125 #molecular-weight 13776 #checksum 4498

Query Match 81.2%; Score 82; DB 2; Length 125;
Best Local Similarity 81.8%; Pred. No. 6.56e-05;
Matches 9; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 74 ICADPKQKWQ 84
||| ||||| :|
Q7 2 ICIDPKQKMIQ 12

RESULT 14
ENTRY A54678 #type complete
TITLE monocyte chemotactic protein 3 precursor - human
ALTERNATE_NAMES monocyte chemoattractant protein MCP-3
ORGANISM #formal_name Homo sapiens #common_name man
DATE 28-Oct-1994 #sequence_revision 28-Oct-1994 #text_change 24-Sep-1998
ACCESSIONS A54678; JCI1478; S32222
REFERENCE A54678
#authors Odenakker, G.; Fiten, P.; Nys, G.; Froyen, G.; Van Roy, N.; Speleman, F.; Laureys, G.; Van Damme, J.
#journal Genomics (1994) 21:403-408
#title The human MCP-3 gene (SCYA7): cloning, sequence analysis, and assignment to the C-C chemokine gene cluster on chromosome 17q11.2-q12.
#accession A54678
#molecule_type DNA
#residues 1-109 #label OPD
#cross-references GB:X72309
REFERENCE JCI1478
#authors Odenakker, G.; Froyen, G.; Fiten, P.; Proost, P.; Van Damme, J.
#journal Biochem. Biophys. Res. Commun. (1993) 191:535-542
#title Human monocyte chemotactic protein-3 (MCP-3): Molecular cloning of the cDNA and comparison with other chemokines.
#accession JCI1478
#molecule_type mRNA
#residues 1-109 #label OP2
REFERENCE S32222
#authors Minty, A.; Chalton, P.; Guillemot, J.C.; Kaghad, M.; Lhazun, P.; Magazin, M.; Miloux, B.; Miron, C.; Ramond, P.; Viala, N.; Lutzker, J.; Shire, D.; Ferrara, P.; Caput, D.
#submission submitted to the EMBL Data Library, March 1993
#description Molecular cloning of MCP-3: a human monocyte-derived monocyte chemoattractant protein.
#accession S32222
#molecule_type mRNA
#residues 1-109 #label MIN
#cross-references EMBL:X71087; NID:9288396; PID:9288397
COMMENT This protein induces proteinase secretion and chemotaxis by macrophages and monocytes.
GENETICS GDB:SCYA7; SCYA6; MCP-3
#gene
#cross-references GDB:138473; OMIM:158106

#map_position 17q11-17q12
#introns 36/1; 75/2
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS #superfamily glycoprotein; inflammation
FEATURE 1-33
34-109
#domain signal sequence #status predicted #label SIG
39 #product monocyte chemotactic protein 3 #status predicted #label MCP
#binding_site carbohydrate (Asn) (covalent) #status predicted
SUMMARY #length 109 #molecular-weight 12356 #checksum 1535

Query Match 80.2%; Score 81; DB 2; Length 109;
Best Local Similarity 75.0%; Pred. No. 1.06e-04;
Matches 9; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 83 EICADPTQKWQ 94
||| ||||| :|
Q7 1 EICIDPKQKMIQ 12

RESULT 15
ENTRY A53497 #type complete
TITLE pre-B-cell growth-stimulating factor precursor - mouse
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE 02-Jun-1994 #sequence_revision 02-Jun-1994 #text_change 10-Sep-1997
ACCESSIONS A53497; I59582
REFERENCE A53497
#authors Nagasawa, T.; Kikutani, H.; Kishimoto, T.
#journal Proc. Natl. Acad. Sci. U.S.A. (1994) 91:2305-2309
#title Molecular cloning and structure of a pre-B-cell growth-stimulating factor.
#accession A53497
#status preliminary
#molecule_type mRNA
#residues 1-89 #label NAG
#cross-references GB:D21072; NID:9413905; PID:d1005177; PID:9468457
REFERENCE I59582
#authors Tashiro, K.; Tada, H.; Heller, R.; Shirozu, M.; Nakano, T.; Honjo, T.
#journal Science (1993) 261:600-603
#title Signal sequence trap: a cloning strategy for secreted proteins and type I membrane proteins.
#cross-references M01D:93342488
#accession I59582
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-89 #label RES
#cross-references GB:L12029; NID:9393179; PID:9393180
GENETICS
#gene SDF-1-alpha
KEYWORDS cytokine
SUMMARY #length 89 #molecular-weight 10032 #checksum 4622

Query Match 79.2%; Score 80; DB 2; Length 89;
Best Local Similarity 66.7%; Pred. No. 1.71e-04;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 69 QVICDPKTKMIQ 80
::: ||||| :|
Q7 1 EICIDPKQKMIQ 12

RESULT 16
ENTRY I53416 #type complete
TITLE interleukin-8 homolog - mouse
ORGANISM #formal_name Mus sp. #common_name mouse
DATE 02-Aug-1996 #sequence_revision 02-Aug-1996 #text_change 28-Feb-1997
ACCESSIONS I53416
REFERENCE I53416
#authors Jiang, W.; Zhou, P.; Kahn, S.M.; Tomita, N.; Johnson, M.D.;

Query Match 79.2% Score 80; DB 2; Length 89;
Best Local Similarity 66.7% Pred. No. 1.71e-04;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 69 QVCIDPKLKWIO 80
:::|||||
QY 1 EICLDPKOKWIO 12

RESULT 17
ENTRY G01540 #type complete
TITLE cytokine SDF-1-beta - human
ORGANISM #formal_name Homo sapiens #common_name man
DATE 21-Dec-1996 #sequence_revision 06-Jun-1997 #text_change 17-Jul-1998

ACCESSIONS G01540
REFERENCE G07697
#authors Spottila, L.D.
#submission submitted to the EMBL Data Library, October 1994
#accession G01540
#status Preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-93 #label SPO
#cross-references EMBL:016752; NID:g1272194; PID:g571508
SUMMARY #length 93 #molecular-weight 10666 #checksum 6309

Query Match 79.2% Score 80; DB 2; Length 93;
Best Local Similarity 66.7% Pred. No. 1.71e-04;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 69 QVCIDPKLKWIO 80
:::|||||
QY 1 EICLDPKOKWIO 12

RESULT 18
ENTRY I81182 #type complete
TITLE cytokine - mouse
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE 02-Aug-1996 #sequence_revision 02-Aug-1996 #text_change 28-Feb-1997

ACCESSIONS I81182
REFERENCE I59582
#authors Tashiro, K.; Tada, H.; Heilker, R.; Shirozu, M.; Nakano, T.; Honjo, T.
#journal Science (1993) 261:600-603
#title Signal sequence trap: a cloning strategy for secreted proteins and type I membrane proteins.
#cross-references MUID:93342488
#accession I81182
#status Preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-93 #label RES
#cross-references GB:LI2030; NID:g393181; PID:g393182
GENETICS #gene SDF-1-beta
SUMMARY #length 93 #molecular-weight 10561 #checksum 5309

Query Match 79.2% Score 80; DB 2; Length 93;
Best Local Similarity 66.7% Pred. No. 1.71e-04;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 69 QVCIDPKLKWIO 80
:::|||||
QY 1 EICLDPKOKWIO 12

RESULT 19
ENTRY JC2417 #type complete
TITLE monocytic chemottractant protein-2 - pig
ORGANISM #formal_name Sus scrofa domestica #common_name domestic pig
DATE 24-Feb-1995 #sequence_revision 24-Feb-1995 #text_change 03-May-1996

ACCESSIONS JC2417
REFERENCE JC2417
#authors Hosang, K.; Knoke, I.; Klaudiny, J.; Wempe, F.; Wuttke, W.; Scheit, K.H.
#journal Biochem. Biophys. Res. Commun. (1994) 205:148-153
#title Porcine luteal cells express monocytic chemottractant protein-2 (MCP-2): Analysis by cDNA cloning and northern analysis.
#accession JC2417
#molecule_type mRNA
#residues 1-99 #label HOS
#experimental_source corpus luteum
CLASSIFICATION #superfamily macrophage inflammatory protein
FEATURE 1-23
24-99 #domain signal sequence #status predicted #label SIG
#product monocytic chemottractant protein-2 #status predicted #label MAP

SUMMARY #length 99 #molecular-weight 10903 #checksum 7556

Query Match 78.2% Score 79; DB 2; Length 99;
Best Local Similarity 66.7% Pred. No. 2.76e-04;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 73 EVCADPQOKWQ 84
:::|||||
QY 1 EICLDPKOKWIO 12

RESULT 20
ENTRY I48147 #type complete
TITLE monocytic chemottractant protein-1 - guinea pig
ORGANISM #formal_name Cavia porcellus #common_name guinea pig
DATE 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 09-May-1997

ACCESSIONS I48147
REFERENCE I48147
#authors Yoshimura, T.
#journal J. Immunol. (1993) 150:5025-5032
#title cDNA cloning of guinea pig monocytic chemottractant protein-1 and expression of the recombinant protein.
#cross-references MUID:93267104
#accession I48147
#status Preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-120 #label RES
#cross-references GB:LI04985; NID:g349820; PID:g349821
GENETICS #gene MCP-1
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 120 #molecular-weight 13741 #checksum 9252

Query Match 78.2% Score 79; DB 2; Length 120;
Best Local Similarity 66.7% Pred. No. 2.76e-04;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 71 EVCADPQOKWQ 82
:::|||||
QY 1 EICLDPKOKWIO 12

RESULT 21
ENTRY JC4912 #type complete
TITLE eotaxin - human
ORGANISM #formal_name Homo sapiens #common_name man
DATE 01-Nov-1996 #sequence_revision 01-Nov-1996 #text_change 08-Sep-1997

ACCESSIONS
REFERENCE JC4912
#authors Bartels, J.; Schluter, C.; Richter, E.; Noso, N.; Kulke, R.;
#journal Biochem. Biophys. Res. Commun. (1996) 225:1045-1051
#title Human dermal fibroblasts express eotaxin: Molecular cloning,
mRNA expression, and identification of eotaxin sequence
variants.

#accession JC4912
#molecule_type Preliminary
#status Preliminary
#residues 1-97 #label BAR
#cross-references EMBL:Z75668; NID:G1531982; PID:e251275; PID:G1531983
#experimental_source dermal fibroblast
#comment This protein has eosinophil specific chemotactic activity.
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS fibroblast

FEATURE
1-18 #domain signal sequence #status predicted #label SIG\
19-97 #product eotaxin #status predicted #label MAT
SUMMARY #length 97 #molecular_weight 10790 #checksum 448

Query Match 76.3%; Score 77; DB 2; Length 97;
Best Local Similarity 58.3%; Pred. No. 7.10e-04;
Matches 7; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Db 71 ICADPKKKRWQ 82
:||| ||| :|||
OY 1 EICLDPKKWKIQ 12

RESULT 22
ENTRY 148099 #type complete
TITLE eotaxin precursor - guinea pig
ORGANISM #formal_name Cavia porcellus #common_name guinea pig
DATE 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 09-May-1997

ACCESSIONS
REFERENCE 148099
#authors Rothenberg, M.E.; Luster, A.D.; Lilly, C.M.; Drazen, J.M.;
#journal Leder, P.
#title J. Exp. Med. (1995) 181:1211-1216
#cross-references MUID:95173589
#accession 148099
#status Preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-96 #label RES
#cross-references EMBL:U18941; NID:G687655; PID:G687656
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 96 #molecular_weight 10753 #checksum 7236

Query Match 74.3%; Score 75; DB 2; Length 96;
Best Local Similarity 72.7%; Pred. No. 1.81e-03;
Matches 8; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 71 ICADPKKKRWQ 81
:||| ||| :|||
OY 2 ICLDPKKWKIQ 12

RESULT 23
ENTRY JC2478 #type complete
TITLE eotaxin - rat
REFERENCE

ORGANISM
DATE #formal_name Rattus norvegicus #common_name Norway rat
21-Feb-1995 #sequence_revision 05-Apr-1995 #text_change 08-Sep-1997

ACCESSIONS
REFERENCE JC2478
#authors Jose, P.J.; Adcock, I.M.; Griffiths-Johnson, D.A.; Berkman,
#journal N.; Wells, T.N.C.; Williams, T.J.; Power, C.A.
#title Biochem. Biophys. Res. Commun. (1994) 203:788-794
Biochem. Biophys. Res. Commun. (1994) 203:788-794
Eotaxin: Cloning of an eosinophil chemottractant cytokine
and increased mRNA expression in allergen-challenged
guinea-pig lungs.

#accession JC2478
#molecule_type mRNA
#status 1-96 #label JOS
#residues 1-96
#cross-references EMBL:X77603; NID:G602551; PID:G602552
#comment This protein is identified as a potent eosinophil chemoattractant.
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS glycoprotein

FEATURE
1-23 #domain signal sequence #status predicted #label SIG\
24-96 #product eotaxin #status predicted #label MAT\
93 #binding_site carbohydrate (Thr) (covalent) #status
predicted

SUMMARY #length 96 #molecular_weight 10695 #checksum 7329

Query Match 74.3%; Score 75; DB 2; Length 96;
Best Local Similarity 72.7%; Pred. No. 1.81e-03;
Matches 8; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 71 ICADPKKKRWQ 81
:||| ||| :|||
OY 2 ICLDPKKWKIQ 12

RESULT 24
ENTRY 152322 #type complete
TITLE macrophage inflammatory protein-1alpha - rat
ORGANISM #formal_name Rattus norvegicus #common_name Norway rat
DATE 29-May-1998 #sequence_revision 29-May-1998 #text_change 02-Jul-1998

ACCESSIONS
REFERENCE 152322
#authors Shi, M.M.; Godleski, J.J.; Paulauskis, J.D.
#journal Biochem. Biophys. Res. Commun. (1995) 211:289-295
#title Molecular cloning and posttranscriptional regulation of
macrophage inflammatory protein-1 alpha in alveolar
macrophages.

#cross-references MUID:95298037
#accession 152322
#status Preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-92 #label RES
#cross-references EMBL:U22414; NID:G790632; PID:G790633
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 92 #molecular_weight 10335 #checksum 3184

Query Match 73.3%; Score 74; DB 2; Length 92;
Best Local Similarity 58.3%; Pred. No. 2.88e-03;
Matches 7; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Db 71 QICADPKKRWQ 82
:||| ||| :|||
OY 1 EICLDPKKWKIQ 12

RESULT 25
ENTRY JC5295 #type complete
TITLE monocyte chemotactic protein-2 - human
ORGANISM #formal_name Homo sapiens #common_name man
DATE 02-May-1997 #sequence_revision 18-Jul-1997 #text_change 31-Oct-1997

ACCESSIONS
REFERENCE JC5295
JC5295

RESULT 29
ENTRY A32393 #type complete
TITLE macrophage inflammatory protein-1-alpha precursor - mouse
ALTERNATE_NAMES heparin-binding chemotaxis protein; ILG25b protein;
Sci/MIP-1a; SIS alpha; stem cell inhibitor/macrophage
inflammatory protein 1-alpha; T-cell activation protein
alpha; IT5
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change
08-Sep-1997
ACCESSIONS S11685; A32393; S04533; A53885; A30552; PS0303; A27596;
I56104
REFERENCE
#authors S11685
#journal Grove, M.; Lowe, S.; Graham, G.; Pragnell, I.; Plumb, M.
#title Nucleic Acids Res. (1990) 18:5561
Sequence of the murine haemopoietic stem cell
inhibitor/macrophage inflammatory protein 1-alpha gene.
#cross-references MUID:91016858
#accession S11685
#molecule_type DNA
#residues 1-92 ##label GRO
#cross-references EMBL:X53372; NID:954062; PID:9297531
##note the authors' translation of the nucleotide sequence
differs at several positions from the sequence given
REFERENCE
#authors A32393
#journal Kwon, B.S.; Weissman, S.M.
#title Proc. Natl. Acad. Sci. U.S.A. (1989) 86:1963-1967
CDNA sequence of two inducible T-cell genes.
#cross-references MUID:89184547
#accession A32393
#molecule_type mRNA
#residues 1-92 ##label KMO
#cross-references GB:J04491; NID:9201524; PID:9201525
REFERENCE
#authors S04533
#journal Davatelis, G.; Tekamp-Olson, P.; Wolpe, S.D.; Hermesen, K.;
#title Luedke, C.; Gallegos, C.; Colt, D.; Merryweather, J.;
Cerami, A.
J. Exp. Med. (1988) 167:1939-1944
Cloning and characterization of a cDNA for murine macrophage
inflammatory protein (MIP), a novel monokine with
inflammatory and chemokinetic properties.
#cross-references MUID:88258380
#accession S04533
#molecule_type mRNA
#residues 1-48,'E',50-90,'I',92 ##label DA2
#cross-references EMBL:X12531
##note the authors translated the codon GAG for residue 49 as
Asp and ATT for residue 91 as Asn
the sequence has been corrected in reference A53885
REFERENCE
#authors A53885
#journal Davatelis, G.; Tekamp-Olson, P.; Wolpe, S.D.; Hermesen, K.;
#title Luedke, C.; Gallegos, C.; Colt, D.; Merryweather, J.;
Cerami, A.
J. Exp. Med. (1989) 170:2189
#journal J. Exp. Med. (1989) 170:2189
#contents erratum
#accession A53885
#molecule_type mRNA
#residues 1-92 ##label DAV
#cross-references EMBL:X12531; NID:953122; PID:953123
REFERENCE
#authors A30552
#journal Brown, K.D.; Zurawski, S.M.; Kosmann, T.R.; Zurawski, G.
#title J. Immunol. (1989) 142:679-687
A family of small inducible proteins secreted by leukocytes
are members of a new superfamily that includes leukocyte
and fibroblast-derived inflammatory agents, growth factors,
and indicators of various activation processes.
#cross-references MUID:89093938
#accession A30552
#molecule_type mRNA
#residues 1-21,'L',23-61,'A',63-92 ##label BRO
#cross-references GB:M23447; NID:9533240; PID:9533241
REFERENCE
JL0088

#authors Sherry, B.; Tekamp-Olson, P.; Gallegos, C.; Bauer, D.;
Davatelis, G.; Wolpe, S.D.; Mastiarz, F.; Colt, D.; Cerami,
A.
#journal J. Exp. Med. (1988) 168:2251-2259
#title Resolution of the two components of macrophage inflammatory
protein 1, and cloning and characterization of one of those
components, macrophage inflammatory protein 1 beta.
#cross-references MUID:89067830
#accession PS0303
#molecule_type mRNA
#residues 24-33,'XX',36-54 ##label SHE
REFERENCE
#authors A27596
#journal Wolpe, S.D.; Davatelis, G.; Sherry, B.; Beutler, B.; Hesse,
D.G.; Nguyen, H.T.; Moldawer, L.L.; Nathan, C.F.; Lowry,
S.F.; Cerami, A.
#title J. Exp. Med. (1988) 167:570-581
Macrophages secrete a novel heparin-binding protein with
inflammatory and neutrophil chemokinetic properties.
#cross-references MUID:88154745
#accession A27596
#molecule_type protein
#residues 24-33,'XX',36-42 ##label WOL
##note 26-Met, 30-Pro, and 39-Thr were also found
REFERENCE
#authors I56104
#journal Widmer, U.; Yang, Z.; van Deventer, S.; Manogue, K.R.;
#title Sherry, B.; Cerami, A.
J. Immunol. (1991) 146:4031-4040
Genomic structure of murine macrophage inflammatory
protein-1-alpha and conservation of potential regulatory
sequences with a human homolog, Lf8.
#cross-references MUID:91237116
#accession I56104
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type DNA
#residues 1-92 ##label RES
#cross-references GB:M73061; NID:919694; PID:919695
COMMENT This protein is a monokine.
GENETICS
#introns 23/3; 26/1; 63/2
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS heparin binding
FEATURE
1-23 #domain signal sequence #status predicted #label SIG
24-92 #product macrophage inflammatory protein #status
experimental #label MAT
SUMMARY
#length 92 #molecular-weight 10345 #checksum 5009
Query Match 66.3%; Score 67; DB 2; Length 92;
Best Local Similarity 50.0%; Pred. NO. 6.80e-02;
Matches 6; Conservative 4; Mismatches 2; Gaps 0;
Indels 0;
Db 71 QICADSKETWYQ 82
:|||:|:|:|:
QY 1 EICDPPKQKWIQ 12
RESULT 30
ENTRY S07723 #type complete
TITLE immediate-early serum-responsive protein JE - rat
ALTERNATE_NAMES monocytic chemoattractant protein-1
ORGANISM #formal_name Rattus norvegicus #common_name Norway rat
DATE 29-Jan-1993 #sequence_revision 29-Jan-1993 #text_change
08-Sep-1997
ACCESSIONS S07723; JN0128
REFERENCE
#authors S07723
#journal Timmers, H.T.M.; Pronk, G.J.; Bos, J.L.; van der ED, A.J.
#title Nucleic Acids Res. (1990) 18:23-34
Analysis of the rat JE gene promoter identifies an AP-1
binding site essential for basal expression but not for TPA
induction.
#cross-references MUID:90174947
#accession S07723
#molecule_type DNA

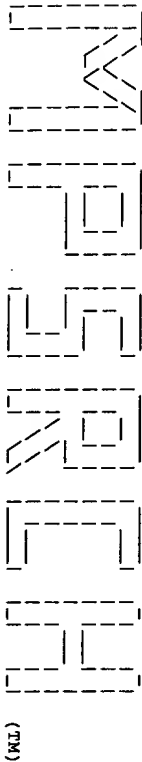
```
##residues      1-148 ##label TIM
##cross-references EMBL:X17053; NID:955530; PID:955531
REFERENCE      JN0128
#authors      Yoshimura, T.; Takeya, M.; Takahashi, K.
#journal      Biochem. Biophys. Res. Commun. (1991) 174:504-509
#title        Molecular cloning of rat monocyte chemoattractant protein-1
              (MCP-1) and its expression in rat spleen cells and tumor
              cell lines.
#cross-references MUID:91128376
#accession     JN0128
##molecule_type mRNA
##residues     1-148 ##label YOS
##cross-references GB:M57441; NID:9205333; PID:9205334
##experimental_source spleen cells
##note         the authors translated the codon GAA for residue 62 as
              Lys and GCT for residue 63 as Leu

GENETICS
#introns       26/1: 65/2
CLASSIFICATION #superfamily macrophage inflammatory protein
FEATURE
1-23           #domain signal sequence #status predicted #label SIG\
24-148         #product immediate-early serum-responsive protein JE
              #status predicted #label MAT
SUMMARY        #length 148 #molecular-weight 16460 #checksum 4876

Query Match    66.3%; Score 67; DB 2; Length 148;
Best local similarity 58.3%; Pred. No. 6.80e-02;
Matches 7; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

Db      73 EICADPNKEWVQ 84
      ||| ||| |||
QY      1 EICLDPKOKWIQ 12

Search completed: Thu Apr 1 07:45:44 1999
Job time : 17 secs.
```

(TM)

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MPSrch_PP protein - protein database search, using Smith-Waterman algorithm
Run on: Thu Apr 1 07:44:14 1999; MasPar time 2.31 Seconds
Tabular output not generated. 139.571 Million cell updates/sec

Title: >US-08-927-939-14
Description: (1-12) from US08927939.pep
Perfect Score: 101
Sequence: 1 EICLDPKQKWIQ 12

Scoring table:
PAM 150
Gap 15

Searched: 74019 segs, 26840295 residues

Post-processing: Minimum Match 0%
Listing first 100 summaries

Database: swiss-prot36
1:swissprot

Statistics: Mean 26.176; Variance 33.721; scale 0.776

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description	Pred. No.
1	93	92.1	101	1 IL8_SHEEP	INTERLEUKIN-8 PRECURSO	1.14e-08
2	93	92.1	101	1 IL8_CANFA	INTERLEUKIN-8 PRECURSO	1.14e-08
3	93	92.1	103	1 IL8_PIG	INTERLEUKIN-8 PRECURSO	1.14e-08
4	90	89.1	101	1 IL8_BOVIN	INTERLEUKIN-8 PRECURSO	6.27e-08
5	90	89.1	101	1 IL8_RABIT	INTERLEUKIN-8 PRECURSO	6.27e-08
6	88	87.1	99	1 MCP1_HUMAN	MONOCYTE CHEMOTACTIC P	1.93e-07
7	88	87.1	99	1 MCP1_CANFA	MONOCYTE CHEMOTACTIC P	1.93e-07
8	85	84.2	99	1 MCP2_BOVIN	MONOCYTE CHEMOTACTIC P	1.03e-06
9	85	84.2	99	1 MCP2_HUMAN	MONOCYTE CHEMOTACTIC P	1.03e-06
10	84	83.2	98	1 MCP4_HUMAN	MONOCYTE CHEMOTACTIC P	1.79e-06
11	84	83.2	99	1 IL8_HUMAN	INTERLEUKIN-8 PRECURSO	1.79e-06
12	84	83.2	101	1 IL8_CAVPO	INTERLEUKIN-8 PRECURSO	1.79e-06
13	83	82.2	99	1 MCP1_BOVIN	MONOCYTE CHEMOTACTIC P	3.10e-06
14	82	81.2	125	1 MCP1_RABIT	MONOCYTE CHEMOTACTIC P	5.35e-06
15	81	80.2	97	1 EOTA_MOUSE	EOTAXIN PRECURSOR (EOS	9.23e-06
16	81	80.2	97	1 EOTA_RAT	EOTAXIN PRECURSOR (EOS	9.23e-06
17	81	80.2	99	1 MCP3_HUMAN	MONOCYTE CHEMOTACTIC P	9.23e-06
18	80	79.2	89	1 SDF1_MOUSE	STROMAL CELL-DERIVED F	1.59e-05
19	80	79.2	93	1 SDF1_HUMAN	STROMAL CELL-DERIVED F	1.59e-05
20	80	79.2	97	1 EOTA_HUMAN	EOTAXIN PRECURSOR (EOS	1.59e-05
21	80	79.2	101	1 IL8_CERTO	INTERLEUKIN-8 PRECURSO	1.59e-05
22	80	79.2	101	1 IL8_MACMU	INTERLEUKIN-8 PRECURSO	1.59e-05
23	79	78.2	99	1 MCP2_PIG	MONOCYTE CHEMOTACTIC P	2.72e-05
24	79	78.2	120	1 MCP1_CAVPO	MONOCYTE CHEMOTACTIC P	2.72e-05
25	77	76.2	104	1 MCP5_MOUSE	MONOCYTE CHEMOTACTIC P	7.91e-05
26	75	74.3	96	1 EOTA_CAVPO	EOTAXIN PRECURSOR (EOS	2.27e-04
27	74	73.3	92	1 M1A_RAT	MACROPHAGE INFLAMMATOR	3.84e-04
28	73	72.3	74	1 MCP2_BOVIN	MONOCYTE CHEMOTACTIC P	6.45e-04
29	73	72.3	99	1 MCP2_HUMAN	MONOCYTE CHEMOTACTIC P	6.45e-04
30	72	71.3	89	1 M1P4_HUMAN	MACROPHAGE INFLAMMATOR	1.08e-03
31	72	71.3	103	1 EMFL_CHICK	EMBRYO FIBROBLAST PROT	1.08e-03
32	71	70.3	148	1 MCP1_MOUSE	MONOCYTE CHEMOTACTIC P	1.81e-03
33	67	66.3	92	1 M1A_MOUSE	MACROPHAGE INFLAMMATOR	1.35e-02
34	67	66.3	148	1 MCP1_RAT	MONOCYTE CHEMOTACTIC P	1.35e-02
35	66	65.3	97	1 MCP3_MOUSE	MONOCYTE CHEMOTACTIC P	2.22e-02
36	65	64.4	91	1 S1SD_MOUSE	T-CELL SPECIFIC RANTES	3.62e-02
37	65	64.4	92	1 S1SD_RAT	T-CELL SPECIFIC RANTES	3.62e-02
38	63	62.4	92	1 M1A_HUMAN	MACROPHAGE INFLAMMATOR	9.53e-02
39	63	62.4	92	1 M1B_HUMAN	MACROPHAGE INFLAMMATOR	9.53e-02
40	63	62.4	93	1 CCL1_HUMAN	CHEMOKINE CC-1 PRECURS	9.53e-02
41	63	62.4	93	1 M10_HUMAN	TONSILLAR LYMPHOCYTE L	9.53e-02
42	63	62.4	96	1 M13_HUMAN	MACROPHAGE INFLAMMATOR	9.53e-02
43	63	62.4	109	1 CCC3_HUMAN	CHEMOKINE CC-3 PRECURS	9.53e-02
44	60	59.4	90	1 M1B_CHICK	MACROPHAGE INFLAMMATOR	3.93e-01
45	60	59.4	92	1 M1B_RABIT	MACROPHAGE INFLAMMATOR	3.93e-01
46	60	59.4	114	1 LTN_RAT	LYMPHOTACTIN PRECURSOR	3.93e-01
47	60	59.4	176	1 YGDP_ECOLI	HYPOTHETICAL 20.8 KD P	3.93e-01
48	59	58.4	50	1 S1SD_PIG	T-CELL SPECIFIC RANTES	6.24e-01
49	59	58.4	85	1 KOC2_ECOLI	TRANSCRIPTIONAL REPR	6.24e-01
50	59	58.4	91	1 S1SD_HUMAN	T-CELL SPECIFIC RANTES	6.24e-01
51	59	58.4	91	1 S1SD_CAVPO	T-CELL SPECIFIC RANTES	6.24e-01
52	59	58.4	114	1 LTN_MOUSE	LYMPHOTACTIN PRECURSOR	6.24e-01
53	59	58.4	201	1 RETB_RAT	PLASMA RETINOL-BINDING	6.24e-01
54	58	57.4	770	1 STA3_MOUSE	SIGNAL TRANSDUCER AND	9.85e-01
55	58	57.4	770	1 STA3_HUMAN	SIGNAL TRANSDUCER AND	9.85e-01
56	58	57.4	770	1 STA3_RAT	SIGNAL TRANSDUCER AND	9.85e-01
57	57	56.4	915	1 PAC6_MOUSE	SERINE PROTEASE PC6 PR	1.55e+00
58	57	56.4	915	1 PAC6_RAT	SERINE PROTEASE PC6 PR	1.55e+00
59	56	55.4	92	1 M1B_RAT	MACROPHAGE INFLAMMATOR	2.42e+00
60	56	55.4	284	1 DRN1_RAT	DEOXYRIBONUCLEASE I PR	2.42e+00
61	56	55.4	2875	1 RPL1_TSW1	RNA-DIRECTED RNA POLYM	2.42e+00
62	55	54.5	148	1 YPOL_IPNVJ	HYPOTHETICAL 17.3 KD P	3.76e+00
63	55	54.5	916	1 RTJK_DROFG	RNA-DIRECTED DNA POLYM	3.76e+00
64	54	53.5	196	1 YGDP_HAEN	HYPOTHETICAL PROTEIN H	5.81e+00
65	54	53.5	450	1 DHE4_LACBI	NADP-SPECIFIC GLUTAMAT	5.81e+00
66	54	53.5	606	1 R3PA_MOUSE	RABPHILIN-3A (FRAGMENT	5.81e+00
67	54	53.5	684	1 R3PA_RAT	RABPHILIN-3A (FRAGMENT	5.81e+00
68	53	52.5	694	1 PNKL_NPVAC	PUTATIVE POLYNUCLEOTID	5.81e+00
69	53	52.5	92	1 M1B_MOUSE	MACROPHAGE INFLAMMATOR	8.93e+00
70	53	52.5	117	1 YJRK_YEAST	HYPOTHETICAL 13.2 KD P	8.93e+00
71	53	52.5	117	1 AKC2_PIG	ALVEOLAR MACROPHAGE CH	8.93e+00
72	53	52.5	140	1 VNS1_CAVPN	NONSTRUCTURAL PROTEIN	8.93e+00
73	53	52.5	227	1 DRN1_PIG	DEOXYRIBONUCLEASE I (E	8.93e+00
74	53	52.5	408	1 RTCB_ECOLI	RTCB PROTEIN.	8.93e+00
75	53	52.5	262	1 DRN1_SHEEP	DEOXYRIBONUCLEASE I (E	8.93e+00
76	53	52.5	260	1 DRN1_BOVIN	DEOXYRIBONUCLEASE I (E	1.36e+01
77	53	52.5	357	1 HA15_MOUSE	H-2 CLASS I HISTOCOMPA	1.36e+01
78	52	51.5	460	1 YAS4_HAEN	HYPOTHETICAL PROTEIN H	1.36e+01
79	52	51.5	485	1 IAT2_LYCES	1-AMINOACYLOPROPAPE-1-	1.36e+01
80	52	51.5	579	1 YAC1_MOUSE	HYPOTHETICAL 68.6 KD P	1.36e+01
81	52	51.5	873	1 PC1_MOUSE	PLASMA-CELL MEMBRANE P	1.36e+01
82	52	51.5	1128	1 PC1_HUMAN	PLASMA-CELL MEMBRANE P	1.36e+01
83	52	51.5	156	1 UBCO_RAT	MEMBRANE-ASSOCIATED PR	1.36e+01
84	51	50.5	335	1 UBCO_YEAST	PROBABLE UBIQUITIN-CON	2.07e+01
85	51	50.5	335	1 UPAR_HUMAN	CYTOCHROME P450 LXXVIA	2.07e+01
86	51	50.5	505	1 C762_SOLME	MAJOR CAPSID PROTEIN L	2.07e+01
87	51	50.5	532	1 INV4_YEAST	INVERTASE 4 PRECURSOR	2.07e+01
88	51	50.5	532	1 INVA_YEAST	INVERTASE 2 PRECURSOR	2.07e+01
89	51	50.5	619	1 RBCO_HAEN	ATP-DEPENDENT DNA HELI	2.07e+01
90	51	50.5	650	1 VEL_HPV73	REPLICATION PROTEIN EI	2.07e+01
91	51	50.5	702	1 ADA3_YEAST	ADA3 PROTEIN (NG1 PRO	2.07e+01

97 51 50.5 1126 1 MEM2_DROME MEMBRANE-ASSOCIATED PR 2.07e+01
98 51 50.5 1584 1 Y39G_YEAST HYPOTHETICAL 182.0 KD 2.07e+01
99 50 49.5 360 1 HALA_BOVIN BOLA CLASS I HISTOCOMP 3.12e+01
100 50 49.5 587 1 FOIC_HUMAN POLY(POLYGLUTAMATE SYN 3.12e+01

ALIGNMENTS

RESULT 1
ID IL8_SHEEP STANDARD: PRT; 101 AA.
AC P36925;
DT 01-JUN-1994 (REL. 29, CREATED)
DT 01-JUN-1994 (REL. 29, LAST SEQUENCE UPDATE)
DT 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
DE INTERLEUKIN-8 PRECURSOR (IL-8).
GN IL8.
OS OVIS ARIES (SHEEP).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
CC EUTHERIA; ARTIODACTYLA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE; 95121931.
RA LEGASTFLOIS I., GREENLAND T., ARNAUD P., MORENEX J.F., CORDIER G.;
RL GENE 150:367-369(1994).
[2]
SEQUENCE FROM N.A.
RX MEDLINE; 95137691.
RA SEOM H.F., YOSHIMURA T., WOOD P.R., COLDITZ I.G.;
RL IMMUNOL. CELL BIOL. 72:398-405(1994).
CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
BASOPHILS, AND T-CELLS. BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
RESPONSE TO AN INFLAMMATORY STIMULUS.
CC -1- SUBUNIT: HOMODIMER.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
C-X-C) (CHEMOKINE CXC).
DR EMBL; X78306; G463254; -;
DR EMBL; S74436; G786591; -;
DR PIR; S42496; S42496.
DR HSSP; P10145; 31L8.
DR PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
FT SIGNAL 1 22 BY SIMILARITY.
FT CHAIN 1 101 INTERLEUKIN-8.
FT DISULFID 34 61 BY SIMILARITY.
FT DISULFID 36 77 BY SIMILARITY.
SQ SEQUENCE 101 AA; 11292 MW; 5A574527 CRC32;
Query Match 92.1%; Score 93; DB 1; Length 101;
Best Local Similarity 75.0%; Pred. No. 1.14e-08;
Matches 9; Conservative 3; Mismatches 0; Indels 0; Gaps 0;
Db 75 EYCLDPKRWQ 86
1 EICLDPKRWQ 12
OY 1 EICLDPKRWQ 12
RESULT 2
ID IL8_CANFA STANDARD: PRT; 101 AA.
AC P41324;
DT 01-FEB-1995 (REL. 31, CREATED)
DT 01-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE)
DT 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
DE INTERLEUKIN-8 PRECURSOR (IL-8).
GN IL8.
OS CANIS FAMILIARIS (DOG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
CC EUTHERIA; CARNIVORA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE; 94010328.
RA ISHIKAWA J., SUZUKI S., HOTTA K., HIROTA Y., MIZUNO S., SUZUKI K.;
RL GENE 131:305-306(1993).

RN [2]
RP SEQUENCE FROM N.A.
RX TISSUE-LYMPH NODE;
RC MEDLINE; 95127913.
RA MATSUMOTO Y., MOHAMED A., ONODERA T., KATO H., OHASHI T.,
RA ISHIKAWA J., HOTTA K., SUZUKI K., HIROTA Y.;
RL CYTOKINE 6:455-461(1994).
[3]
RP SEQUENCE FROM N.A.
RC STRAIN-MONGREL; TISSUE-JUGULAR VEIN;
RX MEDLINE; 95114148.
RA KUTIELKA G.L., SMITH W.C., LA ROSA G.J., MANNING A.M.,
RA MENDOZA L.H., DALY T.J., HUGHES B.J., YOKER K.A., HAWKINS H.K.,
RA MICHAEL L.H., ROT A., ENTMAN M.L.;
RL J. CLIN. INVEST. 95:89-103(1994).
CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
BASOPHILS, AND T-CELLS. BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
RESPONSE TO AN INFLAMMATORY STIMULUS.
CC -1- SUBUNIT: HOMODIMER.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
C-X-C) (CHEMOKINE CXC).
DR EMBL; D28772; G517100; -;
DR EMBL; D14285; G475152; -;
DR EMBL; U10308; G607814; -;
DR PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
FT SIGNAL 1 22 BY SIMILARITY.
FT CHAIN 1 101 INTERLEUKIN-8.
FT DISULFID 34 61 BY SIMILARITY.
FT DISULFID 36 77 BY SIMILARITY.
SQ SEQUENCE 101 AA; 11280 MW; 7C49D62D CRC32;
Query Match 92.1%; Score 93; DB 1; Length 101;
Best Local Similarity 75.0%; Pred. No. 1.14e-08;
Matches 9; Conservative 3; Mismatches 0; Indels 0; Gaps 0;
Db 75 EYCLDPKRWQ 86
1 EICLDPKRWQ 12
OY 1 EICLDPKRWQ 12
RESULT 3
ID IL8_PIG STANDARD: PRT; 103 AA.
AC P26894; P22951;
DT 01-AUG-1991 (REL. 19, CREATED)
DT 01-AUG-1992 (REL. 23, LAST SEQUENCE UPDATE)
DT 01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
DE INTERLEUKIN-8 PRECURSOR (IL-8) (ALVEOLAR MACROPHAGE CHEMOTACTIC FACTOR
I) (AMCF-I).
GN IL8.
OS SUS SCROFA (PIG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
CC EUTHERIA; ARTIODACTYLA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE; 94103307.
RA LIN G., PEARSON A.E., SCAMURRA R.W., ZHOU Y., BAARSCH M.J.,
RA WEISS D.J., MURTAUGH M.P.;
RL J. BIOL. CHEM. 269:77-85(1994).
[2]
RP SEQUENCE FROM N.A.
RA SANJAMMALA M.;
RL SUBMITTED (JUL-1991) TO EMBL/GENBANK/DBJ DATA BANKS.
[3]
RP SEQUENCE FROM N.A., AND SEQUENCE OF 26-45.
RC TISSUE-LUNG;
RX MEDLINE; 93041741.
RA GOODMAN R.B., FOSTER D.C., MATHEWS S.L., OSBORN S.G., KUIPER J.L.,
RA FORSTROM J.W., MARTIN T.R.;
RL BIOCHEMISTRY 31:10483-10490(1992).
[4]

RP REVISION TO 23.
RA GOODMAN R.B.;
RN SUBMITTED (MAR-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
RP SEQUENCE OF 26-45.
RC STRAIN-YORKSHIRE:
RX MEDLINE: 91217086.
RA GOODMAN R.B., FORSTROM J.W., OSBORN S.G., CHI E.Y., MARTIN T.R.;
RL J. BIOL. CHEM. 266:8455-8463(1991).
CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
CC RESPONSE TO AN INFLAMMATORY STIMULUS.
CC -1- SUBUNIT: HOMODIMER.
CC -1- TISSUE SPECIFICITY: ALVEOLAR MACROPHAGES.
CC -1- INDUCTION: BY LIPOPOLYSACCHARIDE.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
C-X-C) (CHEMOKINE CXCL).
DR EMBL: M86923; G164521; -;
DR EMBL: X61151; G516197; -;
DR EMBL: M99367; G1235612; -;
DR PIR: A44253; A44253.
DR PIR: A39819; A39819.
DR HSSP: P10145; 3118.
DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; 1.
KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
FT SIGNAL 1 25
FT CHAIN 1 25
FT SIGNAL 1 25
FT DISULFID 26 103 INTERLEUKIN-8.
FT DISULFID 34 61 BY SIMILARITY.
FT DISULFID 36 77 BY SIMILARITY.
FT CONFLICT 33 34 RC -> CR (IN REF. 5).
FT CONFLICT 87 87 K -> KK (IN REF. 2).
SQ SEQUENCE 103 AA: 11633 MW: A012D59D CRC32;

Query Match 92.1%; Score 93; DB 1; Length 103;
Best Local Similarity 75.0%; Pred. No. 1.14e-08;
Matches 9; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Db 75 EYCLDPKRWVQ 86
1 EICLDPKRWQ 12

RESULT 4
ID IL8_BOVIN STANDARD; PRT; 101 AA.
AC P79355;
DT 01-NOV-1997 (REL. 35, CREATED)
DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
DE INTERLEUKIN-8 PRECURSOR (IL-8).
GN IL8.
OS BOS TAURUS (BOVINE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA.
OC EUTHERIA; ARTIODACTYLA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 96304552.
RA MOREY M.A., POPOWICH Y., KOMALSKI J., GERLACH G., GODSON D.,
RA CAMPOS M., BABIUK L.A.;
RL MICROB. PATHOG. 20:203-212(1996).
CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
CC RESPONSE TO AN INFLAMMATORY STIMULUS (BY SIMILARITY).
CC -1- SUBUNIT: HOMODIMER (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
C-X-C) (CHEMOKINE CXCL).
DR EMBL: S82358; G1699354; -;
DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; 1.
KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
FT SIGNAL 1 22
FT CHAIN 23 101 BY SIMILARITY.
FT DISULFID 34 61 INTERLEUKIN-8.
FT DISULFID 36 61 BY SIMILARITY.

FT DISULFID 36 77 BY SIMILARITY.
SQ SEQUENCE 101 AA: 11291 MW: 0E39C526 CRC32;
Query Match 89.1%; Score 90; DB 1; Length 101;
Best Local Similarity 66.7%; Pred. No. 6.27e-08;
Matches 8; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

Db 75 EYCLDPKRWVQ 86
1 EICLDPKRWQ 12

RESULT 5
ID IL8_RABIT STANDARD; PRT; 101 AA.
AC P19874;
DT 01-FEB-1991 (REL. 17, CREATED)
DT 01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
DT 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
DE INTERLEUKIN-8 PRECURSOR (IL-8) (NEUTROPHIL ATTRACTANT/ACTIVATION
PROTEIN-1) (NAP-1) (PERMEABILITY FACTOR 1) (RPF1).
GN IL8.
OS ORCTOLAGUS CUNICULUS (RABBIT).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA.
OC EUTHERIA; LAGOMORPHA.
RN [1]
RP SEQUENCE FROM N.A.
RX STRAIN-NEW ZEALAND WHITE; TISSUE-SPLEEN;
RC MEDLINE: 91225489.
RA YOSHIMURA T., YUKI N.;
RL J. IMMUNOL. 146:3483-3488(1991).
RN [2]
RP SEQUENCE OF 23-53.
RC STRAIN-NEW ZEALAND WHITE; TISSUE-PERITONEAL CAVITY;
RX MEDLINE: 91058518.
RA BEAUBIEN B.C., COLLINS P.D., JOSE P.J., TOTTY N.F., HSUAN J.,
RA WATERFIELD M.D., WILLIAMS T.J.;
RL BIOCHEM. J. 271:797-801(1990).
CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
CC RESPONSE TO AN INFLAMMATORY STIMULUS.
CC -1- SUBUNIT: HOMODIMER.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
C-X-C) (CHEMOKINE CXCL).
DR EMBL: M57439; G165553; -;
DR PIR: S13052; S13052.
DR HSSP: P10145; 3118.
DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; 1.
KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
FT SIGNAL 1 22
FT CHAIN 23 101 INTERLEUKIN-8.
FT DISULFID 34 61 BY SIMILARITY.
FT DISULFID 36 77 BY SIMILARITY.
FT CONFLICT 50 50 K -> I (IN REF. 2).
SQ SEQUENCE 101 AA: 11402 MW: CB32CC30 CRC32;

Query Match 89.1%; Score 90; DB 1; Length 101;
Best Local Similarity 75.0%; Pred. No. 6.27e-08;
Matches 9; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Db 75 EYCLDPKRWVQ 86
1 EICLDPKRWQ 12

RESULT 6
ID MCP1_HUMAN STANDARD; PRT; 99 AA.
AC P13500;
DT 01-JAN-1990 (REL. 13, CREATED)
DT 01-JAN-1990 (REL. 13, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE CHEMOTACTIC
AND ACTIVATING FACTOR) (MCAF) (MONOCYTE SECRETORY PROTEIN JE)

DE (MONOCYTE CHEMOTACTIC PROTEIN 1) (HC11) (SMALL INDUCIBLE CYTOKINE
A2).
GN SCY2 OR MCP1.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; PRIMATES.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 8915682.
RA FURUTANI Y., NOMURA H., NOTAKE M., OYAMADA Y., FUKUI T., YAMADA M.,
RA LARSEN C.G., OPPENHEIM J.J., MATSUSHIMA K.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 159:249-255(1989).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 9009780.
RA ROLLINS B.J., STIER P., ERNST T., WONG G.G.;
RL MOL. CELL. BIOL. 9:4687-4695(1989).
RN [3]
RP SEQUENCE FROM N.A.
RX MEDLINE: 8915605.
RA YOSHIMURA T., YOHKI N., MOORE S.K., APPELLA E., LERMAN M.I.,
RA LEONARD E.J.;
RL FEBS LETT. 244:487-493(1989).
RN [4]
RP SEQUENCE FROM N.A.
RX MEDLINE: 9029046.
RA SHY Y.J., LI Y.S., KOLATYRKUDY P.E.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 169:346-351(1990).
RN [5]
RP SEQUENCE FROM N.A.
RX MEDLINE: 9120793.
RA CHANG H.C., HSU F., FREEMAN G.J., GRIFFIN J.D., REINHART E.L.;
RL INT. IMMUNOL. 1:388-399(1989).
RN [6]
RP SEQUENCE FROM N.A.
RX MEDLINE: 9415047.
RA LI Y.S., SHY Y.J., WRIGHT J.G., VALENTE A.J., CORNHILL J.F.,
RA KOLATYRKUDY P.E.;
RL MOL. CELL. BIOPHYS. 126:61-68(1993).
RN [7]
RP SEQUENCE FROM N.A.
RX MEDLINE: 9209516.
RA YOSHIMURA T., LEONARD E.J.;
RL ADV. EXP. MED. BIOL. 305:47-56(1991).
RN [8]
RP SEQUENCE OF 24-99.
RX MEDLINE: 8918452.
RA ROBINSON E.A., YOSHIMURA T., LEONARD E.J., TANAKA S., GRIFFIN P.R.,
RA SHARONOWITZ J., HUNT D.F., APPELLA E.;
RL PROC. NATL. ACADE. SCI. U.S.A. 86:1850-1854(1989).
RN [9]
RP SEQUENCE OF 29-53 AND 82-92.
RX MEDLINE: 9021136.
RA DECOCK B., CONINGS R., LENNERTS J.-P., BILLING A., VAN DAMME J.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 167:904-909(1990).
RN [10]
RP 3D-STRUCTURE MODELLING.
RX MEDLINE: 9131287.
RA GRONENBORN A.M., CLORE G.M.;
RL PROTEIN ENG. 4:263-269(1991).
RN [11]
RP X-RAY CRYSTALLOGRAPHY (1.85 ANGSTROMS).
RX MEDLINE: 97143315.
RA LUBROWSKI J., BUDACZ G., DOMAILLE P.J., HANDEL T.M., WLODAMER A.;
RL NAT. STRUCT. BIOL. 4:64-69(1997).
RN [12]
RP STRUCTURE BY NMR.
RX MEDLINE: 96234959.
RA HANDEL T.M., DOMAILLE P.J.;
RL BIOCHEMISTRY 35:6569-6584(1996).
RN [13]
RP EFFECT OF DELETION OF N-TERMINAL RESIDUES.
RX MEDLINE: 96195223.

RA WEBER M., UGUCCIONI M., BAGGIOLINI M., CLARK-LEWIS I., DAHINDEN C.A.;
RL J. EXP. MED. 183:681-685(1996).
RN [14]
RP MUTAGENESIS.
RX MEDLINE: 94253189.
RA ZHANG Y.J., RUTLEDGE B.J., ROLLINS B.J.;
RL J. BIOL. CHEM. 269:15918-15924(1994).
RN [15]
RP SUBUNIT.
RX MEDLINE: 97053697.
RA KIM K.-S., RAJARATHNAM K., CLARK-LEWIS I., SYKES B.D.;
RL FEBS LETT. 395:277-282(1996).
CC -I- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND BASOPHILS
CC BUT NOT NEUTROPHILS OR EOSINOPHILS. AUGMENTS MONOCYTE ANTI-TUMOR
CC ACTIVITY. HAS BEEN IMPLICATED IN THE PATHOGENESIS OF DISEASES
CC CHARACTERIZED BY MONOCYTIC INFILTRATES, LIKE PSORIASIS, RHEUMATOID
CC ARTHRITIS OR ATHEROSCLEROSIS. MAY BE INVOLVED IN THE RECRUITMENT
CC OF MONOCYTES INTO THE ARTERIAL WALL DURING THE DISEASE PROCESS OF
CC ATHEROSCLEROSIS.
CC -I- SUBUNIT: MONOMER OR HOMODIMER. IN EQUILIBRIUM.
CC -I- PTM: PROCESSING AT THE N-TERMINUS CAN REGULATE RECEPTOR AND TARGET
CC CELL SELECTIVITY. DELETION OF THE AMINO-TERMINAL RESIDUE CONVERTS
CC IT FROM AN ACTIVATOR OF BASOPHIL TO AN EOSINOPHIL CHEMOTACTANT.
CC -I- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: M31626; G386961; -.
DR EMBL: M30816; G386961; JOINED.
DR EMBL: M31625; G386961; JOINED.
DR EMBL: M24545; G307163; -.
DR EMBL: M28226; G338009; -.
DR EMBL: X14768; G34514; -.
DR EMBL: M37719; G467124; -.
DR EMBL: M28223; G338007; JOINED.
DR EMBL: M28224; G338007; JOINED.
DR EMBL: S69738; G545465; -.
DR EMBL: S71513; G240868; -.
DR EMBL: A17786; G641145; -.
DR PIR: A35474; A35474.
DR PIR: S03339; S03339.
DR PDB: IDOK: 12-MAR-97.
DR PDB: IDOL: 12-MAR-97.
DR PDB: IDOM: 14-OCT-96.
DR PDB: IDON: 14-OCT-96.
DR PDB: IMCA: 15-OCT-94.
DR MIM: 158105; -.
DR PROSITE: PS00472; SMALL CYTOKINES CC; 1.
KV CYTOKINE; CHEMOKINE; SIGNAL; INFLAMMATORY RESPONSE; 3D-STRUCTURE.
FT SIGNAL 1 23
FT CHAIN 24 99
FT MOD_RES 24 24
FT DISULFID 34 59
FT DISULFID 35 75
FT CARBOHYD 37 37
FT VARIANT 76 76
FT MUTAGEN 24 24
FT MUTAGEN 25 32
FT MUTAGEN 25 32
FT MUTAGEN 24 85
FT MUTAGEN 24 91
FT MUTAGEN 26 26
FT MUTAGEN 29 29
FT MUTAGEN 47 47
FT MUTAGEN 50 50
FT MUTAGEN 51 51
FT MUTAGEN 53 53
FT MUTAGEN 91 91
SQ SEQUENCE 99 AA: 11025 MW: 53558695 CRC32:
Query Match 87.1%; Score 88; DB 1; Length 99;
Best Local Similarity 83.3%; Pred. No. 1.93e-07;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
Db 73 EICADPKOKWVO 84

QY 1 EICLDPKQKWQ 12
 ||| |||||:|
 RESULT 7
 ID MCP1_CANFA STANDARD: PRT; 101 AA.
 AC P52203:
 DT 01-OCT-1996 (REL. 34, CREATED)
 DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE
 CHEMOTACTIC PROTEIN-1).
 GN SCYA2 OR MCP1
 OS CANIS FAMILIARIS (DOG).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; CARNIVORA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX TISSUE=JUGULAR VEIN ENDOTHELIAL;
 RA MEDLINE: 97176620.
 RA KUMAR A.G., BALLANTYNE C.M., MICHAEL L.H., KURIELKA G.L., YOUNKER K.A.,
 RA LINDSEY M.L., HAWKINS H.K., BIRDSALL H.H., MACKAY C.R., LAROSA G.J.,
 RA ROSSEN R.D., SMITH C.W., ENTMAN M.L.;
 RA CIRCULATION 95:693-700(1997).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
 CC NEUTROPHILS. IMPORTANT FACTOR IN THE COURSE OF THE INFLAMMATORY
 CC REACTION TO REPERFUSION OF THE PREVIOUSLY ISCHEMIC MYOCARDIUM.
 CC MAY PLAY A SIGNIFICANT ROLE IN MONOCYTE TRAFFICKING INTO THE
 CC REPERFUSED MYOCARDIUM.
 CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
 CC -1- INDUCTION: BY TNF-ALPHA.
 CC -1- TISSUE SPECIFICITY: ENDOTHELIDM OF SMALL VEINS AND INTRAFASCICULAR
 CC VEINS, AND INFILTRATING LEUCOCYTES.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL: U29563: G1144186; -
 DR PROSITE: PS00472: SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
 RN CYTOKINE: CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
 FT SIGNAL 1 23 BY SIMILARITY.
 FT CHAIN 24 101 MONOCYTE CHEMOTACTIC PROTEIN 1.
 FT MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID (BY
 FT SIMILARITY).
 FT DISULFID 34 59 BY SIMILARITY.
 FT DISULFID 35 75 BY SIMILARITY.
 SQ SEQUENCE 101 AA; 11121 MM; A7075B14 CRC32;
 Query Match 87.1%; Score 88; DB 1; Length 101;
 Best Local Similarity 83.3%; Pred. No. 1.93e-07;
 Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
 Db 73 EICADPRKQKWQ 84
 ||| |||||:|
 QY 1 EICLDPKQKWQ 12
 ||| |||||:|
 RESULT 8
 ID MCP1_PIG STANDARD: PRT; 99 AA.
 AC P42831:
 DT 01-NOV-1995 (REL. 32, CREATED)
 DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1).
 GN SCYA2.
 OS SUS SCROFA (PIG).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; ARTIODACTYLA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 94183284.
 RA HOSANG K., KNOKE I., KLAUDINY J., WEMPE F., WUTTEKE W., SCHEIT K.H.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 199:962-968(1994).
 RN [2]
 RP SEQUENCE FROM N.A.

RC TISSUE-BRAIN;
 RA ZACH O.R.F.;
 RL SUBMITTED (JUL-1994) TO EMBL/GENBANK/DBJ DATA BANKS.
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
 CC NEUTROPHILS.
 CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL: 248479: G683717; -
 DR EMBL: X79416: G872313; -
 DR PROSITE: PS00472: SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
 RN CYTOKINE: CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
 FT SIGNAL 1 23 BY SIMILARITY.
 FT CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 1.
 FT MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID (BY
 FT SIMILARITY).
 FT DISULFID 34 59 BY SIMILARITY.
 FT DISULFID 35 75 BY SIMILARITY.
 SQ SEQUENCE 99 AA; 10976 MM; ECC3AFB4 CRC32;
 Query Match 86.1%; Score 87; DB 1; Length 99;
 Best Local Similarity 75.0%; Pred. No. 3.39e-07;
 Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
 Db 73 EICADPRKQKWQ 84
 ||| |||||:|
 QY 1 EICLDPKQKWQ 12
 ||| |||||:|
 RESULT 9
 ID MCP2_BOVIN STANDARD: PRT; 99 AA.
 AC Q09141:
 DT 01-NOV-1995 (REL. 32, CREATED)
 DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
 CHEMOTACTIC PROTEIN 2).
 GN SCYAB OR MCP2.
 OS BOS TAURUS (BOVINE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; ARTIODACTYLA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 94114084.
 RA WEMPE F., HANES J., SCHEIT K.H.;
 RL DNA CELL BIOL. 13:1-8(1994).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES. THIS PROTEIN
 CC CAN BIND HEPARIN.
 CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL: S67954: E118856; -
 DR EMBL: S67956: G544997; -
 DR PROSITE: PS00472: SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOTAXIS; SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE.
 RN CYTOKINE: CHEMOTAXIS; SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE.
 FT SIGNAL 1 23 BY SIMILARITY.
 FT CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 2.
 FT MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID (BY
 FT SIMILARITY).
 FT DISULFID 34 59 BY SIMILARITY.
 FT DISULFID 35 75 BY SIMILARITY.
 SQ SEQUENCE 99 AA; 10900 MM; 9BA3CD26 CRC32;
 Query Match 84.2%; Score 85; DB 1; Length 99;
 Best Local Similarity 66.7%; Pred. No. 1.03e-06;
 Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;
 Db 73 DVCADPRKQKWQ 84
 ||| |||||:|
 QY 1 EICLDPKQKWQ 12
 ||| |||||:|
 RESULT 10

ID MCP4_HUMAN STANDARD: PRT: 98 AA.
 AC Q99616;
 DT 15-JUL-1998 (REL. 36, CREATED)
 DT 15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 4 PRECURSOR (MCP-4) (MONOCYTE
 DE CHEMOATTRACTANT PROTEIN 4) (CK-BETA10) (MCC-1).
 GN SCY13 OR MCP4 OR NCC1.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUHERIA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE=HEART;
 RX MEDLINE: 9711354.
 RA GARCIA-ZEBEDA E.A., COMBADIERE C., ROTHENBERG M.E., SARAFI M.N.,
 RA LAVIGNE F., HAMID O., MURPHY P.M., LUSTER A.D.;
 RL J. IMMUNOL. 157:5613-5626(1996).
 RN [2]
 RP SEQUENCE FROM N.A., AND SEQUENCE OF 17-98.
 RC TISSUE=FETAL;
 RX MEDLINE: 96235049.
 RA UGCCIONI M., LOETSCHER P., FORSMANN U., DEMALD B., LI H., LIMA S.H.,
 RA LI Y., KREIDER B., GAROTTA G., THELEN M., BAGGIOLINI M.;
 RL J. EXP. MED. 183:2379-2384(1996).
 RN [3]
 RP SEQUENCE FROM N.A., AND SEQUENCE OF 22-33.
 RC TISSUE=FETAL;
 RX MEDLINE: 97341179.
 RA BEROUD T.A., SARAU H.M., MOORES K., WHITE J.R., ELSHOUBAGY N.,
 RA APPELBAUM E., REAPE T.J., BRAUER M., MATWANA J., FOLEY J.J.,
 RA SCHWID D.B., IMBURGA C., MACMURTY D., MATTHEWS J., O'DONNELL K.,
 RA O'SHANNESST D., SCOTT M., GROOT P.H.E., MACPHEE C.;
 RL J. BIOL. CHEM. 272:16404-16413(1997).
 RN [4]
 RP SEQUENCE FROM N.A.
 RA DANTE M., GIBSON A.;
 RL SUBMITTED (AUG-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, LYMPHOCYTES,
 CC BASOPHILS AND EOSINOPHILS, BUT NOT NEUTROPHILS. SIGNALS THROUGH
 CC CCR2B AND CCR3 RECEPTORS. PLAYS A ROLE IN THE ACCUMULATION OF
 CC LEUKOCYTES AT BOTH SIDES OF ALLERGIC AND NONALLERGIC INFLAMMATION.
 CC MAY BE INVOLVED IN THE RECRUITMENT OF MONOCYTES INTO THE ARTERIAL
 CC WALL DURING THE DISEASE PROCESS OF ARTERIOSCLEROSIS. MAY PLAY A
 CC ROLE IN THE MONOCYTE ATTRACTION IN TISSUES CHRONICALLY EXPOSED TO
 CC EXOGENOUS PATHOGENS.
 CC -1- MASS SPECTROMETRY: MW-9314; MW-ERR-30; METHOD-WALDI; RANGE-17-98.
 CC -1- MASS SPECTROMETRY: MW-8760; MW-ERR-30; METHOD-WALDI; RANGE-22-98.
 CC -1- MASS SPECTROMETRY: MW-8575; MW-ERR-30; METHOD-WALDI; RANGE-24-98.
 CC -1- INDUCTION: BY INTERLEUKIN-1 AND TNF-ALPHA.
 CC -1- TISSUE SPECIFICITY: WIDELY EXPRESSED. FOUND IN SMALL INTESTINE,
 CC THYMUS, COLON, LUNG, TRACHEA, STOMACH AND LYMPH NODE. LOW LEVELS
 CC SEEN IN THE PULMONARY ARTERY SMOOTH MUSCLE CELLS.
 CC -1- THIS PROTEIN CAN BIND HEPARIN.
 CC -1- PTM: ONE MAJOR ISOFORM MCP-4, AND TWO MINOR ISOFORMS (LA)MCP-4 AND
 CC (LH)MCP-4 ARE PRODUCED BY DIFFERENTIAL SIGNAL CLEAVAGE.
 CC -1- SIMILARITY: BELONGS TO THE INTERCINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 CC EMBL: U46767; G1732123; -;
 CC DR EMBL: AC002482; G2340091; -;
 CC DR MIM: 601391; -;
 DR PROSITE: PS00472; SMALL CYTOKINES.CC; 1.
 KW CYTOKINE; CHEMOKINE; SIGNAL; GLYCOPROTEIN; INFLAMMATORY RESPONSE.
 FT SIGNAL 1 23
 FT CHAIN 1 98
 FT MOD.RES 24 24 MONOCYTE CHEMOTACTIC PROTEIN 4.
 FT DISULFID 34 58 PYRROLIDONE CARBOXYLIC ACID.
 FT CARBOHYD 35 74 BY SIMILARITY.
 FT SEQUENCE 29 29 POTENTIAL.
 SO SEQUENCE 98 AA; 10986 MW; DF52F6EC CRC32;
 Query Match 83.2%; Score 84; DB 1; Length 98;

Best Local Similarity 75.0%; Pred. No. 1.79e-06;
 Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
 Db 72 EICADPKKRWQ 83
 Oy 1 EICADPKKRWQ 12
 RESULT 11
 ID IL8_HUMAN STANDARD: PRT: 99 AA.
 AC P10145;
 DT 01-MAR-1989 (REL. 10, CREATED)
 DT 01-MAR-1989 (REL. 10, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE INTERLEUKIN-8 PRECURSOR (IL-8) (MONOCYTE-DERIVED NEUTROPHIL
 DE CHEMOTACTIC FACTOR) (MNCFC) (T-CELL CHEMOTACTIC FACTOR) (NEUTROPHIL-
 DE ACTIVATING PROTEIN 1) (NAP-1) (LYMPHOCYTE-DERIVED NEUTROPHIL-
 DE ACTIVATING FACTOR) (LYNAP) (PROTEIN 3-10C) (NEUTROPHIL-ACTIVATING
 DE FACTOR) (NAF) (GRANULOCYTE CHEMOTACTIC PROTEIN 1) (GCP-1) (EMOCTAKIN).
 GN IL8.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUHERIA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 88258376.
 RA MATSUSHIMA K., MORISHITA K., YOSHIMURA T., LAVU S., KOBAVASHI Y.,
 RA LEW W., APPELLA E., KUNG H., LEONARD E.J., OPPENHEIM J.J.;
 RL J. EXP. MED. 167:1883-1893(1988).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 87224164.
 RA SCHWID J., WEISSMANN C.;
 RL J. IMMUNOL. 139:250-256(1987).
 RN [3]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 89313739.
 RA KOWALSKI J., DENHART D.T.;
 RL MOL. CELL. BIOL. 9:1946-1957(1989).
 RN [4]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 89309826.
 RA MUKAIDA N., SHIROO M., MATSUSHIMA K.;
 RL J. IMMUNOL. 143:1365-1371(1988).
 RN [5]
 RP SEQUENCE FROM N.A.
 RA ISHIKAWA J.;
 RL SUBMITTED (JAN-1993) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [6]
 RP SEQUENCE OF 23-46.
 RX MEDLINE: 89246368.
 RA GOLDS E.E., MASON P., NYRKOS P.;
 RL BIOCHEM. J. 259:585-588(1989).
 RN [7]
 RP SEQUENCE OF 23-54.
 RX MEDLINE: 89279141.
 RA SUZUKI K., MIYASAKA H., OTA H., YAMAKAWA Y., TAGAWA M., KURAMOTO A.,
 RA MIZUNO S.;
 RL J. EXP. MED. 169:1895-1901(1989).
 RN [8]
 RP SEQUENCE OF 28-99.
 RX MEDLINE: 88162914.
 RA GREGORY H., YOUNG J., SCHROEDER J.M., MROWIETZ U., CHRISTOPHERS E.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 151:883-890(1988).
 RN [9]
 RP SEQUENCE OF 28-59.
 RX MEDLINE: 88106502.
 RA WALZ A., PEYERT P., ASCHAUER H., BAGGIOLINI M.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 149:755-761(1987).
 RN [10]
 RP SEQUENCE OF 28-69.
 RX MEDLINE: 88097462.
 RA YOSHIMURA T., MATSUSHIMA K., TANAKA S., ROBINSON E.A., APPELLA E.,

RA OPENHEIM J.J., LEONARD E.J.;
 RL PROC. NATL. ACAD. SCI. U.S.A. 84:9233-9237(1987).
 RM [11]
 RP STRUCTURE BY NMR.
 RX MEDLINE: 90234679.
 RA CLORE G.M., APPELLA E., YAMADA M., MATSUSHIMA K., GRONENBORN A.M.;
 RL BIOCHEMISTRY 29:1689-1696(1990).
 RM [12]
 RP X-RAY CRYSTALLOGRAPHY (1.6 ANGSTROMS).
 RX MEDLINE: 90216714.
 RA BALDWIN E.T., FRANKLIN K.A., APPELLA E., YAMADA M., MATSUSHIMA K.,
 RL WLODAWER A., WEBER I.T.;
 RM J. BIOL. CHEM. 265:6851-6853(1990).
 RN [13]
 RP X-RAY CRYSTALLOGRAPHY, AND STRUCTURE BY NMR.
 RX MEDLINE: 91171286.
 RA CLORE G.M., GRONENBORN A.M.;
 RL J. MOL. BIOL. 217:611-620(1991).
 RM [14]
 RP X-RAY CRYSTALLOGRAPHY (1.6 ANGSTROMS), AND STRUCTURE BY NMR.
 RX MEDLINE: 91110556.
 RA BALDWIN E.T., WEBER I.T., ST CHARLES R., XUAN J.C., APPELLA E.,
 RL YAMADA M., MATSUSHIMA K., EDWARDS B.F., CLORE G.M., GRONENBORN A.M.;
 RM PROC. NATL. ACAD. SCI. U.S.A. 88:502-506(1991).
 RN [15]
 RP N-TERMINAL FORMS.
 RX MEDLINE: 91006326.
 RA VAN DAMME J., RAMPART M., CONING R., DECOCK B., VAN OSSELAER N.,
 RL WILLEMS J., BILLIAU A.;
 RM EUR. J. IMMUNOL. 20:2113-2118(1990).
 RN [16]
 RP N-TERMINAL FORMS.
 RX MEDLINE: 89231715.
 RA VAN DAMME J., VAN BEUMEN J., CONINGS R., DECOCK B., BILLIAU A.;
 RL EUR. J. BIOCHEM. 181:337-344(1989).
 RN [17]
 RP SYNTHESIS OF 28-99.
 RX MEDLINE: 91175767.
 RA CLARK-LEWIS I., MOSE B., WALZ A., BAGGIOLINI M., SCOTT G.J.,
 RL AEBERSOLD R.;
 RM BIOCHEMISTRY 30:3128-3135(1991).
 RN [18]
 RP REVIEW.
 RX MEDLINE: 92347562.
 RA BAGGIOLINI M., CLARK-LEWIS I.;
 RL FEBS LETT. 307:97-101(1992).
 CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
 BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
 CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
 CC RESPONSE TO AN INFLAMMATORY STIMULUS.
 CC -1- SUBUNIT: HOMODIMER.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
 CC C-X-C) (CHEMOKINE CXCL).
 UR EMBL: Y00787; G34519; -;
 DR EMBL: M17017; G178580; -;
 DR EMBL: M26383; G188628; -;
 DR EMBL: M28130; G186368; -;
 DR EMBL: D14283; G219916; -;
 DR PIR: A37034; A37034;
 DR PIR: S03975; S03975;
 DR PIR: S04216; S04216;
 DR PDB: 1IL8; 15-JAN-91.
 DR PDB: 2IL8; 15-JAN-91.
 DR PDB: 3IL8; 15-OCT-92.
 DR PDB: 1ICW; 12-MAR-97.
 DR PDB: 1IKL; 15-OCT-95.
 DR PDB: 1IKM; 15-OCT-95.
 DR MIM: 146930; -;
 DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; 1.
 KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL; 3D-STRUCTURE.
 FT SIGNAL 1 22 INTERLEUKIN-8.
 FT CHAIN 23 99
 FT PROPEP 23 30 ONE OR MORE OF THESE RESIDUES ARE MISSING

FT DISULFID 34 61 IN SOME MATURE FORMS OF IL-8.
 FT DISULFID 36 77
 FT CONFLICT 53 53 R -> L (IN REF. 7).
 FT HELIX 46 48
 FT STRAND 49 55
 FT STRAND 58 58
 FT TURN 59 59
 FT TURN 61 61
 FT STRAND 65 70
 FT TURN 71 72
 FT STRAND 75 78
 FT TURN 80 81
 FT HELIX 83 97
 FT TURN 98 98
 SQ SEQUENCE 99 AA; 11098 MW; 89D1891F CRC32;
 Query Match Score 84; DB 1; Length 99;
 Best Local Similarity 66.7%; Pred. No. 1.79e-06;
 Matches 8; Conservative 4; Mismatches 0; Indels 0; Gaps 0;
 Db 75 ELCLDPKRWVQ 86
 QY 1 ELCLDPKRWVQ 12
 RESULT 12
 ID IL8_CAVPO STANDARD; PRT; 101 AA.
 AC P49113;
 DT 01-FEB-1996 (REL. 33, CREATED)
 DT 01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
 DT 01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
 DE INTERLEUKIN-8 PRECURSOR (IL-8) (NEUTROPHIL ATTRACTANT PROTEIN 1)
 DE (NAP-1).
 GN IL8.
 OS CAVIA PORCELLUS (GUINEA PIG).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE=SPLEEN.
 RX MEDLINE: 94065176.
 RA YOSHIMURA T., JOHNSON D.G.;
 RL J. IMMUNOL. 151:6225-6236(1993).
 CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
 BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
 CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
 CC RESPONSE TO AN INFLAMMATORY STIMULUS (BY SIMILARITY).
 CC -1- SUBUNIT: HOMODIMER (BY SIMILARITY).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
 CC C-X-C) (CHEMOKINE CXCL).
 DR EMBL: L04986; G459765; -;
 DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; 1.
 KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
 FT SIGNAL 1 22
 FT CHAIN 23 101
 FT DISULFID 34 61
 FT DISULFID 36 77
 SQ SEQUENCE 101 AA; 11414 MW; E13FB521 CRC32;
 Query Match Score 84; DB 1; Length 101;
 Best Local Similarity 66.7%; Pred. No. 1.79e-06;
 Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;
 Db 75 QCLDPPKRWVQ 86
 QY 1 ELCLDPKRWVQ 12
 RESULT 13
 ID MCPA_BOVIN STANDARD; PRT; 99 AA.
 AC P28291;
 DT 01-DEC-1992 (REL. 24, CREATED)

DT 01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
 DT 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1A PRECURSOR (MCP-1A) (MCP-1) (ACIDIC
 DE SEMINAL FLUID PROTEIN).
 OS BOS TAUROS (BOVINE).
 CC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUTHERIA; ARTIODACTYLA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-SEMINAL PLASMA;
 RX MEDLINE; 92096117.
 RA WEMPE F., HENSCHEN A., SCHEIT K.H.;
 RL DNA CELL BIOL. 10:671-679(1991).
 RN [2]
 RP SEQUENCE FROM N.A.
 RC TISSUE-SEMINAL PLASMA;
 RX MEDLINE; 92181448.
 RA WEMPE F., EINSPIANIER R., SCHEIT K.H.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 183:232-237(1992).
 RN [3]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 94338337.
 RA WEMPE F., KUHLMANN J.K., SCHEIT K.H.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 202:1272-1279(1994).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
 CC NEUTROPHILS. BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 CC EMBL; L32659; G624394; -.
 DR EMBL; M84602; G163395; -.
 DR PIR; A39296; A39296.
 DR PIR; JC2336; JC2336.
 DR HSP; P13500; IMCA.
 DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOTAXIS; SIGNAL.
 FT SIGNAL 1 23 BY SIMILARITY.
 FT CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 1A.
 FT MOD_RES 24 24 PYROLIDONE CARBOXYLIC ACID (BY
 FT DISULFID 34 59 SIMILARITY).
 FT DISULFID 35 75 BY SIMILARITY.
 SQ SEQUENCE 99 AA; 11114 MW; C8F5821D CRC32;
 Query Match 82.2%; Score 83; DB 1; Length 99;
 Best Local Similarity 75.0%; Pred. No. 3,10e-06;
 Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
 Db 73 ELCDPKOKWQ 84
 QY 1 ELCDPKOKWQ 12
 RESULT 14
 ID MCP1_RABBIT STANDARD; PRT; 125 AA.
 AC P28292;
 DT 01-DEC-1992 (REL. 24, CREATED)
 DT 01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1).
 GN SC2A2.
 CC EUCARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUTHERIA; LAGOMORPHA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-NEW ZEALAND WHITE; TISSUE-SPLEEN;
 RX MEDLINE; 91225489.
 RA YOSHIMURA T., YUHKI N.;
 RL J. IMMUNOL. 146:3483-3488(1991).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
 CC NEUTROPHILS.
 CC -1- SUBUNIT: MONOMER OR HOMODIMER, IN EQUILIBRIUM (BY SIMILARITY).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE

CC C-C) (CHEMOKINE CC).
 DR EMBL; M57440; G163470; -.
 DR HSP; P13500; IMCA.
 DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
 FT SIGNAL 1 23 BY SIMILARITY.
 FT CHAIN 24 125 MONOCYTE CHEMOTACTIC PROTEIN 1.
 FT MOD_RES 24 24 PYROLIDONE CARBOXYLIC ACID (BY
 FT DISULFID 34 59 SIMILARITY).
 FT DISULFID 35 75 BY SIMILARITY.
 FT CARBOHYD 40 40 POTENTIAL.
 FT CARBOHYD 55 55 POTENTIAL.
 FT CARBOHYD 112 112 POTENTIAL.
 SQ SEQUENCE 125 AA; 13776 MW; FBAC9D27 CRC32;
 Query Match 81.2%; Score 82; DB 1; Length 125;
 Best Local Similarity 81.8%; Pred. No. 5,35e-06;
 Matches 9; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
 Db 74 ICADPKOKWQ 84
 QY 2 ICADPKOKWQ 12
 RESULT 15
 ID EOTA_MOUSE STANDARD; PRT; 97 AA.
 AC P48298;
 DT 01-FEB-1996 (REL. 33, CREATED)
 DT 01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
 GN SC2A1.
 OS MUS MUSCULUS (MOUSE).
 CC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUTHERIA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-LUNG;
 RX MEDLINE; 96004658.
 RA ROTHENBERG M.E., LUSTER A.D., LEDER P.;
 RL PROC. NATL. ACAD. SCI. U.S.A. 92:8960-8964(1995).
 RN [2]
 RP SEQUENCE FROM N.A.
 RC STRAIN-C57BL/6J; TISSUE-LUNG;
 RX MEDLINE; 96158746.
 RA GONZALO J.-A., JIA G.-Q., AGUIRRE V., FRIEND D., COYLE A.J.,
 RA JENKINS N.A., LIN G.-S., KATZ H., LICHTMAN A., COPELAND N.G., KOPE M.,
 RA GUTIERREZ-RAMOS J.-C.;
 RL IMMUNITY 4:1-14(1996).
 CC -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
 CC DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS (A PROMINENT
 CC FEATURE OF ALLERGIC INFLAMMATORY REACTIONS), BUT NOT
 CC LYMPHOCYTES, MACROPHAGES OR NEUTROPHILS.
 CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
 CC -1- TISSUE SPECIFICITY: EXPRESSED CONSTITUTIVELY IN THE THYMUS.
 CC EXPRESSION INDUCIBLE IN THE LUNG (TYPE I ALVEOLAR EPITHELIAL
 CC CELLS), INTESTINE, HEART, SPLEEN, KIDNEY.
 CC -1- INDUCTION: BY INTERFERON-GAMMA AND LIPOPOLYSACCHARIDE (LPS).
 CC -1- PTM: O-GLYCOSYLATED (PROBABLE).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 CC EMBL; U26426; G395911; -.
 DR EMBL; U40672; G111937; -.
 DR MGI; MGI:103576; SCY11.
 DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
 KW EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
 KW INFLAMMATORY RESPONSE.
 FT SIGNAL 1 23 POTENTIAL.
 FT CHAIN 24 97 EOTAXIN.
 FT DISULFID 32 57 BY SIMILARITY.
 FT DISULFID 33 73 BY SIMILARITY.
 SQ SEQUENCE 97 AA; 10893 MW; F85A96BC CRC32;

Query Match 80.2%; Score 81; DB 1; Length 97;
Best Local Similarity 75.0%; Pred. No. 9.23e-06;
Matches 9; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 71 EICADPKKKWQ 82
||| ||| ||| |||
QY 1 EICLDPKOKWQ 12

RESULT 16
ID BOTA_RAT STANDARD; PRT; 97 AA.
AC P97545: 008780:
DT 15-JUL-1998 (REL. 36, CREATED)
DT 15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
OS RATRUS NORVEGICUS (RAT).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
RN EUTHERIA; RODENTIA.
[1]
RP SEQUENCE FROM N.A.
RA WILLIAMS C.M., NEWTON D.J., WILSON S.A., COLEMAN J.C.,
FLANNAGAN B.F.;
RL SUBMITTED (DEC-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
KN [2]
RP SEQUENCE FROM N.A.
RC TISSUE=LUNG;
RA ISHII Y.;
RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
CC -!- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT
FEATURE OF ALLERGIC INFLAMMATORY REACTIONS (BY SIMILARITY).
CC -!- SUBCELLULAR LOCATION: EXTRACELLULAR.
CC -!- PTM: O-GLYCOSYLATED (PROBABLE).
CC -!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
DR EMBL: Y08358; E274141: -.
DR EMBL: U96637; G2098785: -.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
KM INFLAMMATORY RESPONSE.
FT SIGNAL 1 23 POTENTIAL.
FT CHAIN 24 97 EOTAXIN.
FT DISULFID 32 57 BY SIMILARITY.
FT DISULFID 33 73 BY SIMILARITY.
FT CARBOHYD 94 94 POTENTIAL.
FT CONFLICT 3 3 L->S (IN REF. 2).
SQ SEQUENCE 97 AA; 10851 MW; 05B4ED45 CRC32;

Query Match 80.2%; Score 81; DB 1; Length 97;
Best Local Similarity 75.0%; Pred. No. 9.23e-06;
Matches 9; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 71 EICADPKKKWQ 82
||| ||| ||| |||
QY 1 EICLDPKOKWQ 12

RESULT 17
ID MCP3_HUMAN STANDARD; PRT; 99 AA.
AC P80098:
DT 01-DEC-1992 (REL. 24, CREATED)
DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 3 PRECURSOR (MCP-3) (MONOCYTE
DE CHEMOTACTICANT PROTEIN 3) (NC28).
GN SC1A7 OR MCP3.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; PRIMATES.
RN [1]
RP SEQUENCE FROM N.A., AND SEQUENCE OF 31-67 AND 71-99.

RX MEDLINE: 93213290.
RA OPDENAKKER G., FROYEN G., FITEN P., PROOST P., VAN DAMME J.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 191:535-542(1993).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 94375065.
RA OPDENAKKER G., FITEN P., NYS G., FROYEN G., VAN ROY N., SPELEMAN F.,
LAUREYS G., VAN DAMME J.;
RL GENOMICS 21:403-408(1994).
RN [3]
RP SEQUENCE FROM N.A.
RX MEDLINE: 93305913.
RA MINTY A., CHARLON P., GUILLEMOT J.C., KAGHAD M., LIAUZON P.,
MAGAZIN M., MILOUX B., MINTY C., RAMOND P., VITA N., LUPKER J.,
RA SHIRE D., FERRARA P., CAPUT D.;
RL EUR. CYTOKINE NETW. 4:99-110(1993).
RN [4]
RP SEQUENCE OF 30-99.
RC TISSUE=OSTEOSARCOMA;
RX MEDLINE: 92308855.
RA VAN DAMME J., PROOST P., LENAERTS J.-P., OPDENAKKER G.;
RL J. EXP. MED. 176:59-65(1992).
RN [5]
RP STRUCTURE BY NMR, AND SUBUNIT.
RX MEDLINE: 97053697.
RA KIM K.-S., RAJARATHNAM K., CLARK-LEWIS I., SYKES B.D.;
RL FEBS LETT. 395:277-282(1996).
RN [6]
RP STRUCTURE BY NMR.
RX MEDLINE: 97263733.
RA MEUNIER S., BERNASAU J.-M., GUILLEMOT J.-C., FERRARA P., DARBON H.;
RL BIOCHEMISTRY 36:4412-4422(1997).
CC -!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND
EOSINOPHILS, BUT NOT NEUTROPHILS. AUGMENTS MONOCYTE ANTI-TUMOR
ACTIVITY. ALSO INDUCES THE RELEASE OF GELATINASE B. THIS PROTEIN
CAN BIND HEPARIN.
CC CC
CC -!- SUBUNIT: MONOMER.
CC -!- PTM: O-GLYCOSYLATED.
CC -!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
DR EMBL: X72308; G313708: ALT_INIT.
DR EMBL: X72309; -: NOT_ANNOTATED_CDS.
DR EMBL: X71087; G288399: -.
DR EMBL: X71087; G288398: ALT_INIT.
DR EMBL: X71087; G288397; ALT_INIT.
DR PIR: JC1478; JC1478.
DR PIR: S32322; S32322.
DR PIR: A54678; A54678.
DR PDB: INCV; 15-OCT-97.
DR MIM: 158106; -.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; HEPARIN-BINDING; GLYCOPROTEIN; SIGNAL;
KM INFLAMMATORY RESPONSE: 3D-STRUCTURE.
FT SIGNAL 1 23 MONOCYTE CHEMOTACTIC PROTEIN 3.
FT CHAIN 24 99 PYROLIDONE CARBOXYLIC ACID.
FT MOD_RES 24 24 BY SIMILARITY.
FT DISULFID 34 59 BY SIMILARITY.
FT DISULFID 35 75 BY SIMILARITY.
FT CARBOHYD 29 29 POTENTIAL.
FT CONFLICT 30 30 T->K (IN REF. 4).
FT CONFLICT 68 70 MISSING (IN REF. 4).
SQ SEQUENCE 99 AA; 11200 MW; 7502E19C CRC32;

Query Match 80.2%; Score 81; DB 1; Length 99;
Best Local Similarity 75.0%; Pred. No. 9.23e-06;
Matches 9; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 73 EICADPTOKWQ 84
||| ||| ||| |||
QY 1 EICLDPKOKWQ 12

RESULT 18

ID SDF1.MOUSE STANDARD; PRT; 89 AA.
AC P40224;
DT 01-FEB-1995 (REL. 31, CREATED)
DT 01-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE)
DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
DE STROMAL CELL-DERIVED FACTOR 1 PRECURSOR (SDF-1) (PRE-B CELL GROWTH
DE STIMULATING FACTOR) (PBSF) (12-O-TETRADECANOYLPHORBOL 13-ACETATE
DE REPRRESSED PROTEIN 1) (TPARI) (THYMIC LYMPHOMA CELL STIMULATING FACTOR)
DE (TUSF).
GN SDF1.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE; 94181581.
RA NAGASAWA T., KIKUTANI H., KISHIMOTO T.;
RL PROC. NATL. ACAD. SCI. U.S.A. 91:2305-2309(1994).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE; 93342488.
RA TASHIRO K., TADA H., HEIKER R., SHIROZU M., NAKANO T., HONJO T.;
RL SCIENCE 261:600-603(1993).
RN [3]
RP SEQUENCE FROM N.A.
RX MEDLINE; 95073497.
RA JIANG W., ZHOU P., KAHN S.M., TOMITA N., JOHNSON M.D.,
RA WEINSTEIN I.B.;
RL EXP. CELL RES. 215:284-293(1994).
RN [4]
RP SEQUENCE FROM N.A.
RC STRAIN-AKR/7;
RA NOMURA M., NAKATA Y., UZAMA A., NOSE M., AKASHI M., SUZUKI G.;
RL SUBMITTED (DEC-1994) TO EMBL/GENBANK/DBJ DATA BANKS.
CC -1- FUNCTION: CHEMOKINE/ATRACTANT ACTIVE ON T-LYMPHOCYTES, MONOCYTES, BUT
CC NOT NEUTROPHILS.
CC -1- FUNCTION: STIMULATES THE PROLIFERATION OF BONE MARROW-DERIVED B
CC PROGENITOR CELLS IN THE PRESENCE OF IL-7 AS WELL AS GROWTH OF THE
CC STROMAL CELL-DEPENDENT B-CELL CLONE DW34 CELLS.
CC -1- ALTERNATIVE PRODUCTS: TWO DIFFERENT FORMS (ALPHA AND BETA) ARE
CC PROBABLY GENERATED BY ALTERNATIVE SPLICING.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
CC C-X-C) (CHEMOKINE CXCL).
CC EMBL; D21072; G468457; -;
CC EMBL; L12028; G393180; -;
CC EMBL; L12030; G393182; -;
CC EMBL; S74318; G786394; -;
CC EMBL; D43804; G1304174; -;
CC EMBL; D43805; G1304175; -;
CC PIR; A53497; A53497;
DR MGD; MGI:103556; SDF1.
DR PROSITE; PS00471; SMALL_CYTOKINES_CXC; FALSE NEG.
KW CYTOKINE; CHEMOKINES; GROWTH FACTOR; SIGNAL; ALTERNATIVE SPLICING.
FT SIGNAL 1 19
FT CHAIN 20 89
FT DISULFID 30 55
FT DISULFID 32 71
FT VARSPLIC 89 89
SQ SEQUENCE 89 AA; 10032 MW; 222CAE52 CRC32;
Query Match 79.2%; Score 80; DB 1; Length 89;
Best local Similarity 66.7%; Pred. No. 1.59e-05;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

DT 01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE STROMAL CELL-DERIVED FACTOR 1 PRECURSOR (SDF-1) (PRE-B CELL GROWTH
DE STIMULATING FACTOR) (PBSF).
GN SDF1.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; PRIMATES.
RN [1]
RP SEQUENCE FROM N.A.
RA SPOTILIA L.D.;
RL SUBMITTED (OCT-1994) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE; 96039262.
RA SHIROZU M., NAKANO T., INAZAWA J., TASHIRO K., TADA H.,
RA SHINOHARA T., HONJO T.;
RL GENOMICS 28:495-500(1995).
RN [3]
RP STRUCTURE BY NMR OF 22-88.
RX MEDLINE; 96046030.
RA CRUMP M.P., GONG J.H., LOETSCHER P., RAJARATHNAM K., AMARA A.,
RA ARENZANA-SEISDEDOS F., VIRELIZIER J.L., BAGGIOLINI M., SYKES B.D.,
RA CLARK-LEWIS I.;
RL EMBO J. 16:6996-7007(1997).
CC -1- FUNCTION: CHEMOKINE/ATRACTANT ACTIVE ON T-LYMPHOCYTES, MONOCYTES, BUT
CC NOT NEUTROPHILS.
CC -1- ALTERNATIVE PRODUCTS: TWO DIFFERENT FORMS (ALPHA AND BETA) ARE
CC PROBABLY GENERATED BY ALTERNATIVE SPLICING.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
CC C-X-C) (CHEMOKINE CXCL).
CC EMBL; U16752; G571508; -;
CC EMBL; L36033; G1220366; -;
CC PDB; 1SDF; 28-JAN-98.
CC PDB; 2SDF; 17-JUN-98.
DR MIM; 600835; -;
DR PROSITE; PS00471; SMALL_CYTOKINES_CXC; FALSE NEG.
KW CYTOKINE; CHEMOKINES; GROWTH FACTOR; SIGNAL; ALTERNATIVE SPLICING.
FT 3D-STRUCTURE 1 19
FT SIGNAL 20 93
FT CHAIN 30 55
FT DISULFID 32 71
SQ SEQUENCE 93 AA; 10666 MW; 4B9911C7 CRC32;
Query Match 79.2%; Score 80; DB 1; Length 93;
Best local Similarity 66.7%; Pred. No. 1.59e-05;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 69 QVCIDPRKXWQ 80
QY 1 EICIDPRKXWQ 12
ID EUCALYPTUS STANDARD; PRT; 97 AA.
AC P51671; P50877; Q92490; Q92491;
DT 01-OCT-1996 (REL. 34, CREATED)
DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
DE EUCALYPTUS PRECURSOR (EUCALYPTUS CHEMOTACTIC PROTEIN).
GN SCYAL1.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; PRIMATES.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE; 96181758.
RA GARCIA-ZEPEDA E.A., ROTHENBERG M.E., OMNBEY T.R., LEDER P.,
RA LOSTER A.D.;
RL NAT. MED. 2:449-456(1996).
RN [2]
RP SEQUENCE FROM N.A.

DR EMBL: U19849; G644816; -
 DR EMBL: U19851; G644820; -
 DR EMBL: S78555; G1042228; -
 DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; 1.
 KM CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
 FT SIGNAL 1 22 BY SIMILARITY.
 FT CHAIN 23 101 INTERLEUKIN-8.
 FT DISULFID 34 61 BY SIMILARITY.
 FT DISULFID 36 77 BY SIMILARITY.
 SQ SEQUENCE 101 AA; 11320 MW; 77D78AA0 CRC32;
 Query Match 79.2%; Score 80; DB 1; Length 101;
 Best Local Similarity 66.7%; Pred. No. 1.59e-05;
 Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;
 Db 75 EICLDPKRWQ 86
 1 EICLDPKRWQ 12
 RESULT 23
 ID MCP2_PIG STANDARD; PRT; 99 AA.
 AC P49873;
 DT 01-OCT-1996 (REL. 34, CREATED)
 DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
 DE CHEMOTACTIC PROTEIN 2)
 GN SCY28 OR MCP2.
 OS SUS SCROFA (PIG).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; ARTIODACTYLA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 95091716.
 RA HOSANG K.K.; KNOKE I.I.; KLAUDINY J.J.; WEMPE F.F.; WUTKE W.W.;
 RA SCHEIT K.K.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 205:148-153(1994).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES. THIS PROTEIN
 CC CAN BIND HEPARIN.
 CC -1- SUBUNIT: MONOMER OR HOMODIMER, IN EQUILIBRIUM (BY SIMILARITY).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL: 248480; G683719; -
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 KM CYTOKINE; CHEMOTAXIS; SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE.
 FT SIGNAL 1 23 BY SIMILARITY.
 FT CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 2.
 FT MOD_RES 24 24 PYROLIDONE CARBOXYLIC ACID (BY
 FT MOD_RES 24 24 SIMILARITY)
 FT DISULFID 34 59 BY SIMILARITY.
 FT DISULFID 35 75 BY SIMILARITY.
 SQ SEQUENCE 99 AA; 10903 MW; B7620BCF CRC32;
 Query Match 78.2%; Score 79; DB 1; Length 99;
 Best Local Similarity 66.7%; Pred. No. 2.72e-05;
 Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;
 Db 73 EVCADPQKRWQ 84
 1 EICLDPKRWQ 12
 RESULT 24
 ID MCP1_CAVPO STANDARD; PRT; 120 AA.
 AC Q08782;
 DT 01-NOV-1995 (REL. 32, CREATED)
 DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE
 DE CHEMOTACTIC PROTEIN 1)
 GN SCY2 OR MCP1.
 OS CAVIA PORCELLUS (GUINEA PIG).

OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-2; TISSUE-SPLEEN;
 RX MEDLINE: 93267104.
 RA YOSHIMURA T.;
 RL J. IMMUNOL. 150:5025-5032(1993).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
 CC NEUTROPHILS.
 CC -1- SUBUNIT: MONOMER OR HOMODIMER, IN EQUILIBRIUM (BY SIMILARITY).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL: L04985; G349821; -
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 KM CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
 FT SIGNAL 1 23 BY SIMILARITY.
 FT CHAIN 24 120 MONOCYTE CHEMOTACTIC PROTEIN 1.
 FT MOD_RES 24 24 PYROLIDONE CARBOXYLIC ACID (BY
 FT MOD_RES 24 24 SIMILARITY)
 FT DISULFID 33 57 BY SIMILARITY.
 FT DISULFID 34 73 BY SIMILARITY.
 FT CARBOHYD 97 97 POTENTIAL.
 SQ SEQUENCE 120 AA; 13741 MW; 22RAD257 CRC32;
 Query Match 78.2%; Score 79; DB 1; Length 120;
 Best Local Similarity 66.7%; Pred. No. 2.72e-05;
 Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;
 Db 71 EVCADPQKRWQ 82
 1 EICLDPKRWQ 12
 RESULT 25
 ID MCP5_MOUSE STANDARD; PRT; 104 AA.
 AC Q62401;
 DT 01-NOV-1997 (REL. 35, CREATED)
 DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 5 PRECURSOR (MCP-5) (MCP-1 RELATED
 DE CHEMOKINE).
 GN SCYAL2 OR MCP5.
 OS MUS MUSCULUS (MOUSE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 97079149.
 RA JIA G.-Q.; GONZALEZ J.A.; LLOYD C.; KREMER L.; LU L.; MARTINEZ A.C.;
 RA WERSHIL B.K.; GUTIERREZ-RAMOS J.C.;
 RL J. EXP. MED. 184:1939-1951(1996).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 97149438.
 RA SARAFI M.N.; GARCIA-ZEPEDA E.A.; MACLEAN J.A.; CHARO I.F.;
 RA LUSTER A.D.;
 RL J. EXP. MED. 185:99-109(1997).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS EOSINOPHILS, MONOCYTES,
 CC AND LYMPHOCYTES BUT NOT NEUTROPHILS. POTENT MONOCYTE ACTIVE
 CC CHEMOKINE THAT SIGNALS THROUGH CCR2. INVOLVED IN ALLERGIC
 CC INFLAMMATION AND THE HOST RESPONSE TO PATHOGENS AND MAY PLAY A
 CC PIVOTAL ROLE DURING EARLY STAGES OF ALLERGIC LUNG INFLAMMATION.
 CC -1- SUBUNIT: HOMODIMER (BY SIMILARITY).
 CC -1- TISSUE SPECIFICITY: PREDOMINANTLY EXPRESSED IN THE LYMPH NODES AND
 CC THYMUS. ALSO FOUND IN THE SALIVARY GLANDS CONTAINING LYMPH NODES,
 CC BREAST, HEART, LUNG, BRAIN, SMALL INTESTINE, KIDNEY AND COLON.
 CC -1- INDUCTION: BY IRR-GAMMA AND LIPOPOLYSACCHARIDE (LPS).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL: U50712; G1477582; -
 DR EMBL: U66670; G1881583; -
 DR MGD: MGI:108224; SCYAL2.

DR PROSITE: PS00472; SMALL CYTOKINES.CC: 1.
KM CYTOKINE: CHEMOTAXIS; SIGNAL: INFLAMMATORY RESPONSE.
FT SIGNAL 1 22 BY SIMILARITY.
FT CHAIN 23 104 MONOCYTE CHEMOTACTIC PROTEIN 5.
FT DISULFID 33 58 BY SIMILARITY.
FT DISULFID 34 74 BY SIMILARITY.
SQ SEQUENCE 104 AA; 11659 MW; 08FA6C35 CRC32;
Query Match 76.2%; Score 77; DB 1; Length 104;
Best Local Similarity 72.7%; Pred. No. 7.91e-05;
Matches 8; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
Db 72 EICADPKKRWQ 82
QY 1 EICLDPKRWQ 11
RESULT 26
ID EOTA.CAVPO STANDARD; PRT; 96 AA.
AC P80325;
DT 01-JUN-1994 (REL. 29, CREATED)
DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
GN SCY11.
OS CAVIA PORCELLUS (GUINEA PIG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-LUNG;
RX MEDLINE: 95173589.
RA ROTHENBERG M.E., LUSTER A.D., LILLY C.M., DRAZEN J.M., LEDER P.;
J. EXP. MED. 181:1211-1216(1995).
RL [2]
RN SEQUENCE FROM N.A.
RX MEDLINE: 95091818.
RA JOSE P.J., ADCOCK I.M., GRIFFITHS-JOHNSON D.A., BERKMAN N.,
WELLS T.C., WILLIAMS T.J., POWER C.A.;
BIOCHEM. BIOPHYS. RES. COMMUN. 205:788-794(1994).
RL [3]
RN SEQUENCE OF 24-96.
RC STRAIN-HARTLEY; TISSUE-LUNG;
RX MEDLINE: 94157409.
RA JOSE P.J., GRIFFITHS-JOHNSON D.A., COLLINS P.D., WALSH D.T.,
MOOREL R., TOTTY N.F., TRUNG O., HSUAN J.J., WILLIAMS T.J.;
J. EXP. MED. 179:881-887(1994).
RL [1]
RN FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT
FEATURE OF ALLERGIC INFLAMMATORY REACTIONS.
CC [1]- SUBCELLULAR LOCATION: EXTRACELLULAR.
CC [1]- TISSUE SPECIFICITY: LUNG.
CC [1]- PTM: O-GLYCOSYLATED (PROBABLE).
CC [1]- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
DR EMBL: U18941; G687656; -;
EMBL: X77603; G602552; -;
DR HSSP: P13500; IMCA.
DR PROSITE: PS00472; SMALL CYTOKINES.CC: 1.
KM EOSINOPHIL: CYTOKINE: CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
KW INFLAMMATORY RESPONSE.
FT SIGNAL 1 23
FT CHAIN 24 96 EOTAXIN.
FT DISULFID 31 56 BY SIMILARITY.
FT DISULFID 32 72 BY SIMILARITY.
FT CARBOHYD 93 93 POTENTIAL.
FT CONFLICT 88 88 D -> G (IN REF. 2).
SQ SEQUENCE 96 AA; 10753 MW; DD28C7E5 CRC32;
Query Match 74.3%; Score 75; DB 1; Length 96;
Best Local Similarity 72.7%; Pred. No. 2.27e-04;
Matches 8; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 71 ICADPKKRWQ 81
QY 2 EICLDPKRWQ 12
RESULT 27
ID MTLA.RAT STANDARD; PRT; 92 AA.
AC P50229;
DT 01-OCT-1996 (REL. 34, CREATED)
DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
DE MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA PRECURSOR (MIP-1-ALPHA).
GN SCY33 OR MIP1A.
OS RATTUS NORVEGICUS (RAT).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-CD-1; TISSUE-LUNG;
RX MEDLINE: 95298037.
RA SHI M.M., GODLESKI J.J., PAULASKIS J.D.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 211:289-295(1995).
RN [2]
RP SEQUENCE FROM N.A.
RC STRAIN-LONG EVANS; TISSUE-LUNG;
RX MEDLINE: 95238980.
RA SHANLEY T.P., SCHMAL H., FRIEDL H.P., JONES M.L., WARD P.A.;
J. IMMUNOL. 154:4793-4802(1995).
RL [3]
RN SEQUENCE OF 24-57.
RC STRAIN-WISTAR;
RX MEDLINE: 96183056.
RA NAKAGAWA H., SHIOYA S., TAKANO K., SHIBATA F., KATO H.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 220:945-948(1996).
RL [1]
RN FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES.
CC [1]- BASOPHILS, AND LYMPHOCYTES. REQUIRED FOR LONG TNF-ALPHA
PRODUCTION, NEUTROPHIL RECRUITMENT AND SUBSEQUENT LUNG INJURY AND
CC MAY FUNCTION AS AN AUTOCRINE MEDIATOR FOR THE MACROPHAGE
CC PRODUCTION OF TNF-ALPHA WHICH IN TURN UP-REGULATES VASCULAR
CC ADHESION MOLECULES REQUIRED FOR NEUTROPHIL INFLUX. THIS PROTEIN
CC BINDS HEPARIN.
CC [1]- INDUCTION: BY LIPOPOLYSACCHARIDE (LPS).
CC [1]- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
DR EMBL: U22414; G790633; -;
EMBL: U06435; G459150; -;
DR PROSITE: PS00472; SMALL CYTOKINES.CC: 1.
KM CYTOKINE: CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL; HEPARIN-BINDING.
FT SIGNAL 1 23
FT CHAIN 24 92 MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA.
FT DISULFID 34 57 BY SIMILARITY.
FT DISULFID 35 73 BY SIMILARITY.
FT CONFLICT 6 6 A -> T (IN REF. 2).
FT CONFLICT 57 57 C -> W (IN REF. 2 AND 3).
SQ SEQUENCE 92 AA; 10335 MW; F48CF89F CRC32;
Query Match 73.3%; Score 74; DB 1; Length 92;
Best Local Similarity 58.3%; Pred. No. 3.84e-04;
Matches 7; Conservative 3; Mismatches 2; Indels 0; Gaps 0;
Db 71 QICADPKKRWQ 82
QY 1 EICLDPKRWQ 12
RESULT 28
ID MCPB.BOVIN STANDARD; PRT; 74 AA.
AC P80343;
DT 01-FEB-1995 (REL. 31, CREATED)
DT 01-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1B (MCP-1B) (FRAGMENT).

OS BOS TAURUS (BOVINE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; ARTIODACTYLA.
RN [1]
RP SEQUENCE.
RC TISSUE-KIDNEY;
RX MEDLINE: 9503474.
RA PROOST P., WUTIS A., LENAERTS J.-P., VAN DAMME J.;
RL BIOCHEMISTRY 33:13406-13412(1994).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
NEUTROPHILS. AUGMENTS MONOCYTE ANTI-TUMOR ACTIVITY. ALSO INDUCES
THE RELEASE OF GELATINASE B. THIS PROTEIN CAN BIND HEPARIN.
CC -1- PTM. THE N-TERMINAL IS BLOCKED.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; HEPARIN-BINDING.
FT NON_TER 1 1
FT DISULFID 9 34 BY SIMILARITY.
FT DISULFID 10 50 BY SIMILARITY.
SQ SEQUENCE 74 AA: 8360 MW: 66172F08 CRC32;
Query Match 72.3%; Score 73; DB 1; Length 74;
Best Local Similarity 58.3%; Pred. No. 6.45e-04;
Matches 7; Conservative 2; Mismatches 3; Indels 0; Gaps 0;
Db 48 EICAEPRKXWQ 59
1111111111
QY 1 EICLDPKRWIQ 12
RESULT 29
ID MCP2_HUMAN STANDARD; PRT; 99 AA.
AC P80075; P78388;
DT 01-DEC-1992 (REL. 24, CREATED)
DI 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
DI 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
CHEMOTACTANT PROTEIN 2) (HC14).
GN SCY18 OR SCY10 OR MCP2.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; PRIMATES.
RN [1]
RP SEQUENCE FROM N.A., AND VARIANT GLN-69.
RA VAN COILLIE E., FITTEN P., NOMIYAMA H., SAKAKI Y., MIURA R., YOSHIE O.,
RA VAN DAMME J., OPDENAKKER G.;
RL GENOMICS 40:323-331(1997).
RN [2]
RP SEQUENCE FROM N.A., AND VARIANT GLN-69.
RC TISSUE-BONE MARROW;
RX MEDLINE: 97224420.
RA VAN COILLIE E., FROYEN F., NOMIYAMA H., MIURA R., FITTEN P.,
RA VAN AELST I., VAN DAMME J., OPDENAKKER G.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 231:726-730(1997).
RN [3]
RP SEQUENCE OF 23-99 FROM N.A.
RX MEDLINE: 91207938.
RA CHANG H.C., HSU F., FREEMAN G.J., GRIFFIN J.D., REINHERZ E.L.;
RL INT. IMMUNOL. 1:388-399(1992).
RN [4]
RP SEQUENCE OF 26-99.
RC TISSUE-OSTEOSARCOMA;
RX MEDLINE: 92308855.
RA VAN DAMME J., PROOST P., LENAERTS J.-P., OPDENAKKER G.;
RL J. EXP. MED. 176:59-65(1992).
RN [5]
RP SUBUNIT.
RA MEDLINE: 97053697.
RA KIM K.-S., RAJARATHNAM K., CLARK-LEWIS I., SYKES B.D.;
RL FEBS LETT. 395:277-282(1996).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, LYMPHOCYTES,

CC BASOPHILS AND EOSINOPHILS. MAY PLAY A ROLE IN NEOPLASIA AND
CC INFLAMMATORY HOST RESPONSES. THIS PROTEIN CAN BIND HEPARIN.
CC -1- SUBUNIT: MONOMER OR HOMODIMER, IN EQUILIBRIUM.
CC -1- TISSUE SPECIFICITY: HIGHEST EXPRESSION FOUND IN THE SMALL
CC INTESTINE AND PERIPHERAL BLOOD CELLS. INTERMEDIATE LEVELS SEEN IN
CC THE HEART, PLACENTA, LUNG, SKELETAL MUSCLE, THYMUS, COLON, OVARY,
CC SPINAL CORD AND PANCREAS. LOW LEVELS SEEN IN THE BRAIN, LIVER,
CC SPLEEN AND PROSTATE.
CC -1- INDUCTION: BY INTERFERON GAMMA, MITOGENS AND INTERLEUKIN-1.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
DR EMBL: X99886; E279930; ALT_INIT.
DR HSSP: F13500; IMCA.
DR MIM: 602283;
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE;
KM POLYMORPHISM.
FT SIGNAL 1 23 PROBABLE.
FT CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 2.
FT MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID.
FT DISULFID 34 59 BY SIMILARITY.
FT DISULFID 35 75 BY SIMILARITY.
FT VARIANT 69 69 K -> O.
SQ SEQUENCE 99 AA: 11246 MW: 5DD5C20 CRC32;
Query Match 72.3%; Score 73; DB 1; Length 99;
Best Local Similarity 50.0%; Pred. No. 6.45e-04;
Matches 6; Conservative 5; Mismatches 1; Indels 0; Gaps 0;
Db 73 EVCADPKRWVR 84
1111111111
QY 1 EICLDPKRWIQ 12
RESULT 30
ID MIP4_HUMAN STANDARD; PRT; 89 AA.
AC P55774;
DT 01-NOV-1997 (REL. 35, CREATED)
DI 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
DI 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MACROPHAGE INFLAMMATORY PROTEIN 4 PRECURSOR (MIP-4) (PULMONARY AND
DE ACTIVATED MACROPHAGE ASSOCIATED CC CHEMOKINE PARC) (ALTERNATIVE
GN SCY18 OR MIP4.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; PRIMATES.
RN [1]
RP SEQUENCE FROM N.A.
RA LI H., RUBEN S.;
RL PATENT NUMBER US5504003.
RN [2]
RP SEQUENCE FROM N.A., AND PARTIAL SEQUENCE.
RC TISSUE-AORTA, AND LUNG;
RX MEDLINE: 97376836.
RA HIESHIMA K., IMAI T., BABA M., SHODAI K., ISHIZUKA K.,
RA NAKAGAWA T., TSUBOTA J., TAKEYA M., SAKAKI Y., TAKATSUKI K.,
RA MIURA R., OPDENAKKER G., VAN DAMME J., YOSHIE O., NOMIYAMA H.;
RL INT. IMMUNOL. 159:1140-1149(1997).
RN [3]
RP SEQUENCE FROM N.A.
RA KODELJA V., MUELLER C., POLITZ O., HAKIV N., ORFANOS C.E., GOERDT S.;
RL SUBMITTED (AUG-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [4]
RP DISCUSSION OF SEQUENCE.
RX MEDLINE: 97275308.
RA WELLS T.N.C., PETTSCH M.C.;
RL J. LEUKOC. BIOL. 61:545-550(1997).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS LYMPHOCYTES BUT NOT
CC MONOCYTES OR GRANULOCYTES. MAY BE INVOLVED IN B CELL MIGRATION
CC INTO B CELL FOLLICLES IN LYMPH NODES.
CC -1- TISSUE SPECIFICITY: EXPRESSED AT HIGH LEVELS IN THE LUNG. A LOWER

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CC      LEVEL EXPRESSION IS SEEN IN LYMPHOID TISSUES SUCH AS LYMPH NODES,
CC      THYMUS AND APPENDIX.
CC      -1- INDUCTION: BY LIPOLYSACCHARIDE (LPS).
CC      -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC      C-C) (CHEMOKINE CC).
CC      EMBL: AB000221: D1022520; -.
DR      EMBL: Y13710: F321838; -.
DR      PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW      CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
FT      SIGNAL 1 20
FT      CHAIN 21 89 MACROPHAGE INFLAMMATORY PROTEIN 4.
FT      DISULFID 30 54 BY SIMILARITY.
FT      DISULFID 31 70 BY SIMILARITY.
SQ      SEQUENCE 89 AA: 9849 MW: 032NA3DC CRC32;

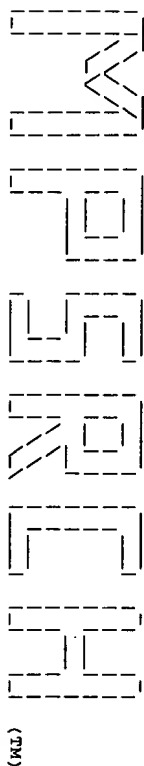
Query Match 71.3%; Score 72; DB 1; Length 89;
Best Local Similarity 58.3%; Pred. No. 1.08e-03;
Matches 7; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Db 68 QICADPNKKRWQ 79
QY 1 EICLDPKRWIQ 12

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Search completed: Thu Apr 1 07:44:22 1999
Job time : 8 secs.

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Mparch_pp protein - protein database search, using Smith-Waterman algorithm

Run on: Thu Apr 1 07:44:40 1999; Maspar time 4.93 Seconds

Tabular output not generated.

Title: >US-08-927-939-14

Description: (1-12) from US08927939.pep

Sequence: 1 EICLDPKOKWIO 12

Scoring table: PAM 150

GAP 15

Searched: 180763 segs, 55169189 residues

Post-processing: Minimum Match 0%

Listing first 100 summaries

Database:

spreml8
1:sp-archaea 2:sp-bacteria 3:sp-fungi 4:sp-human
5:sp-invertebrate 6:sp-mammal 7:sp-mhc 8:sp-organella
9:sp-phage 10:sp-plant 11:sp-rodent 12:sp-unclassified
13:sp-vertebrate 14:sp-virus

Statistics: Mean 25.755; Variance 33.708; scale 0.764

Fred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB	ID	Description	Pred. No.
1	77	76.2	97	6	062812	INTERLEUKIN-8 (FRAGMEN	1.78e-04
2	72	71.3	97	13	057411	LIMPHOCYTIC PRECURSOR	2.39e-03
3	72	71.3	395	11	035188	NEUTROPHIL	2.39e-03
4	72	71.3	395	11	035933	FRACTALKIN	2.39e-03
5	69	68.3	109	11	055038	B LYMPHOCYTE CHEMOTACTR	1.09e-02
6	68	67.3	119	4	000175	MPF-2	1.79e-01
7	67	66.3	97	11	089093	CC CHEMOKINE ST38 PREC	2.94e-02
8	67	66.3	134	4	000585	BETA CHEMOKINE EXODUS-	4.81e-02
9	66	65.3	92	11	088430	CC CHEMOKINE ABCD-1	7.83e-02
10	65	64.4	104	13	073912	K60 PROTEIN PRECURSOR	2.05e-01
11	63	62.4	80	4	014745	LD78 ALPHA BETA PRECUR	2.05e-01
12	63	62.4	95	4	099664	CHEMOKINE EXODUS	2.05e-01
13	63	62.4	96	11	097884	CC CHEMOKINE EXODUS	2.05e-01
14	63	62.4	109	4	043927	CXC CHEMOKINE PRECURSO	2.05e-01
15	63	62.4	120	4	013467	IL-10-INDUCIBLE CHEMOK	2.05e-01
16	61	60.4	101	13	093442	LP2A-1 PROTEIN PRECURS	5.27e-01
17	60	59.4	101	13	093238	CC CHEMOKINE-1	8.39e-01
18	60	59.4	584	5	002426	SMALL HOMOLOG	1.33e+00
19	59	58.4	91	4	043646	RANTES PRECURSOR	1.33e+00
20	59	58.4	201	11	070357	PLASMA RETINOL-BINDING	1.33e+00

21	58	57.4	95	14	098158	ONE K6	2.10e+00
22	58	57.4	203	14	067634	ECO Q PROTEIN (FRAGMEN	2.10e+00
23	58	57.4	397	4	078423	C3C CHEMOKINE PRECURS	2.10e+00
24	58	57.4	535	10	082387	POTATIVE CELL DIVISION	3.29e+00
25	57	56.4	93	4	000626	MACROPHAGE-DERIVED CHE	3.29e+00
26	57	56.4	133	11	009002	SMALL INDUCIBLE CYTOKI	3.29e+00
27	57	56.4	133	11	009006	BETA CHEMOKINE EXODUS-	3.29e+00
28	57	56.4	331	5	017348	HA2K1.2 PROTEIN	3.29e+00
29	57	56.4	760	3	099126	CHITIN SYNTHETASE I	3.29e+00
30	57	56.4	806	13	093599	TRANSCRIPTION FACTOR	3.29e+00
31	57	56.4	899	4	013527	PROHORMONE CONVERTASE	3.29e+00
32	57	56.4	915	4	092824	PG6A PROTEASE	3.29e+00
33	56	55.4	128	10	064975	POTATIVE DISEASE RESIS	5.14e+00
34	56	55.4	281	3	006667	CHROMOSOME IV COSMID 9	5.14e+00
35	56	55.4	767	13	013133	STAT3	5.14e+00
36	55	54.5	1130	14	088282	ENVELOPE PROTEIN	7.98e+00
37	55	54.5	148	14	082745	(STRAIN LMVET 60-1	7.98e+00
38	55	54.5	328	2	025855	HYPOTHETICAL 37.2 KD P	7.98e+00
39	55	54.5	334	7	030770	MHC CLASS I ALLELE SHN	7.98e+00
40	55	54.5	749	13	093598	TRANSCRIPTION FACTOR	7.98e+00
41	55	54.5	947	4	060334	KRAA593 PROTEIN (FRAG	7.98e+00
42	55	54.5	1186	14	055767	POTATIVE TYROSINE PROT	7.98e+00
43	54	53.5	188	5	045136	COSD2.8 PROTEIN	1.23e+01
44	54	53.5	192	10	023536	RESISTANCE GENE HOMOLO	1.23e+01
45	54	53.5	230	14	067245	NS1	1.23e+01
46	54	53.5	282	2	096965	2-HYDROXY-6-OXO-7-METH	1.23e+01
47	54	53.5	363	7	095394	MHC CLASS I A	1.23e+01
48	54	53.5	363	7	030870	MHC CLASS I A	1.23e+01
49	54	53.5	399	14	068409	ORF U154	1.23e+01
50	54	53.5	449	3	001762	CELLULASE	1.23e+01
51	54	53.5	517	2	050018	COSMID B1764	1.23e+01
52	54	53.5	629	9	091819	RNA POLYMERASE II LARG	1.23e+01
53	54	53.5	710	5	019239	HYPOTHETICAL PROTEIN F	1.23e+01
54	54	53.5	770	5	060999	CUL4	1.23e+01
55	54	53.5	862	4	096655	IL-12 RECEPTOR BETA2	1.23e+01
56	54	53.5	1361	10	004264	DOWNY MILDEN RESISTANC	1.23e+01
57	54	53.5	2919	14	085431	RNA POLYMERASE	1.23e+01
58	54	53.5	3587	2	030408	TYROCIDINE SYNTHETASE	1.23e+01
59	53	52.5	145	2	074671	HYPOTHETICAL 16.6 KD P	1.89e+01
60	53	52.5	188	2	031562	YPT PROTEIN	1.89e+01
61	53	52.5	209	1	029680	CONSERVED HYPOTHETICAL	1.89e+01
62	53	52.5	227	14	009683	NONSTRUCTURAL PROTEIN	1.89e+01
63	53	52.5	230	14	092560	NONSTRUCTURAL PROTEIN	1.89e+01
64	53	52.5	230	14	082807	NONSTRUCTURAL PROTEIN	1.89e+01
65	53	52.5	230	14	067261	NONSTRUCTURAL PROTEIN	1.89e+01
66	53	52.5	522	5	061090	SERINE RICH PROTEIN HO	1.89e+01
67	53	52.5	546	5	017245	FS63.7 PROTEIN	1.89e+01
68	53	52.5	642	2	009029	REP PROTEIN (REPLICATI	1.89e+01
69	53	52.5	982	2	093290	HYPOTHETICAL PROTEIN C	1.89e+01
70	53	52.5	1053	2	084634	RIBONUCLEOSIDE REDUCTA	1.89e+01
71	53	52.5	1589	5	045569	FAF41.2	1.89e+01
72	53	52.5	172	2	051136	H11054 HOMOLOG (FRAGME	2.89e+01
73	52	51.5	186	5	045847	T77C5.3	2.89e+01
74	52	51.5	187	2	083516	HYPOTHETICAL 21.4 KD P	2.89e+01
75	52	51.5	224	5	045846	T77C5.2	2.89e+01
76	52	51.5	257	11	088827	PLASMA CELL MEMBRANE G	2.89e+01
77	52	51.5	352	7	030871	MHC CLASS I B	2.89e+01
78	52	51.5	424	2	048859	DNA-BINDING PROTEIN	2.89e+01
79	52	51.5	425	10	004007	PHYTONE SYNTHASE	2.89e+01
80	52	51.5	455	10	043168	1-AMINOCYCLOPROPANE-1-	2.89e+01
81	52	51.5	470	5	025799	HYPOTHETICAL 53.8 KD P	2.89e+01
82	52	51.5	475	4	060646	HYPOTHETICAL 53.8 KD P	2.89e+01
83	52	51.5	477	10	094005	1-AMINOCYCLOPROPANE 1-	2.89e+01
84	52	51.5	575	5	024653	HYPOTHETICAL 65.3 KD P	2.89e+01
85	52	51.5	583	5	062146	PO9B12.3	2.89e+01
86	52	51.5	677	2	051544	PHOSPHATE TRANSPORT SY	2.89e+01
87	52	51.5	768	11	060695	RAL GUANINE NUCLEOTIDE	2.89e+01
88	52	51.5	1124	4	060329	KRAA587 PROTEIN	2.89e+01
89	52	51.5	1234	5	091309	CODED FOR BY C. ELEGAN	2.89e+01
90	52	51.5	1813	6	062653	SUCRASE-ISOMALTAZE	2.89e+01
91	52	51.5	2276	4	075050	KRAA462 PROTEIN (FRAG	2.89e+01
92	51	50.5	95	2	070808	ATP BINDING PROTEIN (F	4.38e+01
93	51	50.5	96	13	090825	CTOKINE	4.38e+01

94 51 50.5 167 7 046767 MHC CLASS I HEAVY CHAI 4.38e+01
 95 51 50.5 388 1 051797 ACAB PROTEIN. 4.38e+01
 96 51 50.5 451 1 058554 HYPOTHETICAL PROTEIN M 4.38e+01
 97 51 50.5 478 5 061122 SEVERIN KINASE. 4.38e+01
 98 51 50.5 955 5 045297 C38C6.1. 4.38e+01
 99 51 50.5 1038 10 023532 RESISTANCE GENE. 4.38e+01
 100 51 50.5 1355 5 016732 K09F6.6 PROTEIN. 4.38e+01

ALIGNMENTS

RESULT 1
 ID 062812 PRELIMINARY; PRT; 97 AA.
 AC 062812.
 DT 01-AUG-1998 (TREMBLREL. 07, CREATED)
 DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
 DT 01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
 DE INTERLEUKIN-8 (FRAGMENT).
 GN IL-8.
 OS EQUUS CABALLUS (HORSE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
 OC PERISSODACTYLA; EQUIDAE; EQUUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-BRONCHOALVEOLAR TISSUE;
 RA FRANCHINI M.;
 RL SUBMITTED (APR-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL; AF062377; G3126973; -.
 FT NON_TER 97 97
 SQ SEQUENCE 97 AA; 10742 MW; 003966BF CRC32;

Query Match 76.2%; Score 77; DB 6; Length 97;
 Best Local Similarity 58.3%; Pred. No. 1.78e-04;
 Matches 7; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

DB 75 EYCLNPHRTKVMQ 86
 1:1111111111
 QY 1 EICLDPKQKMIQ 12

RESULT 2
 ID 057411 PRELIMINARY; PRT; 97 AA.
 AC 057411.
 DT 01-JUN-1998 (TREMBLREL. 06, CREATED)
 DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
 DT 01-JUN-1998 (TREMBLREL. 06, LAST ANNOTATION UPDATE)
 DE LYMPHOTACTIN PRECURSOR.
 OS GALLUS GALLUS (CHICKEN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; ARCHOSAURIA; AVES;
 OC NEOGNATHAE; GALLIFORMES; PHASIANIDAE; PHASIANINAE; GALLUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-SPLEEN;
 RA ROSSI D.L., BAZAN J.F., ZLOTNIK A.;
 PL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 EMBL; AF006742; G2827882; -.
 FT SIGNAL. 1 24 POTENTIAL.
 FT CHAIN 25 97 LYMPHOTACTIN.
 SQ SEQUENCE 97 AA; 11131 MW; 3290101C CRC32;

Query Match 71.3%; Score 72; DB 13; Length 97;
 Best Local Similarity 63.6%; Pred. No. 2.39e-03;
 Matches 7; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

DB 72 ICVHPEOKVMQ 82
 11:1111111111
 QY 2 ICLDPKQKMIQ 12

RESULT 3
 ID 035188 PRELIMINARY; PRT; 395 AA.
 AC 035188;

DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
 DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE NEUROFACIN.
 GN SCYDL.
 OS MUS MUSCULUS (MOUSE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
 OC SCUROGNATHI; MORIDAE; MORINAE; MUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 97320499.
 RA PAN Y., CLARE L., HONG Z., DOLICH S., DEEDS J., GONZALO J., VATH J.,
 RA GOSSELIN M., MA J., DUSSAULT B., WOLFF B., ALBERIN A., CULPEPPER J.,
 RT GUTIERREZ-RAVOS J.C., GEARING D.;
 RT "Neurotactin," a membrane-anchored chemokine upregulated in brain
 inflammation.";
 RL NATURE 387:611-617(1997).
 DR EMBL; AF010586; G2317698; -.
 DR MGD; MGI:1097153; SCYDL.
 DR PFAM; PF00048; 118; 1.
 SQ SEQUENCE 395 AA; 42098 MW; E3CD0612 CRC32;

Query Match 71.3%; Score 72; DB 11; Length 395;
 Best Local Similarity 63.6%; Pred. No. 2.39e-03;
 Matches 7; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

DB 73 FCADPKERKVMQ 83
 111111111111
 QY 2 ICLDPKQKMIQ 12

RESULT 4
 ID 035933 PRELIMINARY; PRT; 395 AA.
 AC 035933.
 DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
 DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE FRACTALKINE.
 OS MUS MUSCULUS (MOUSE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
 OC SCUROGNATHI; MURIDAE; MURINAE; MUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-BALB/C; TISSUE-BRAIN;
 RA ROSSI D., HARDMAN G., COPELAND N., GILBERT D.J., JENKINS N.,
 RA ZLOTNIK A., BAZAN J.F.;
 RL SUBMITTED (MAR-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL; U92565; G2459677; -.
 DR PFAM; PF00048; 118; 1.
 SQ SEQUENCE 395 AA; 42040 MW; 3997A113 CRC32;

Query Match 71.3%; Score 72; DB 11; Length 395;
 Best Local Similarity 63.6%; Pred. No. 2.39e-03;
 Matches 7; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

DB 73 FCADPKERKVMQ 83
 111111111111
 QY 2 ICLDPKQKMIQ 12

RESULT 5
 ID 055038 PRELIMINARY; PRT; 109 AA.
 AC 055038.
 DT 01-JUN-1998 (TREMBLREL. 06, CREATED)
 DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
 DT 01-JUN-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE B LYMPHOCYTE CHEMOTACTICANT BLC.
 OS MUS MUSCULUS (MOUSE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
 OC SCUROGNATHI; MURIDAE; MURINAE; MUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-C57BL/6J;

Query Match	Score 69;	DB 11;	Length 109;
Best Local Similarity	54.5%;	Pred. No. 1.09e-02;	
Matches	6;	Conservative	4; Mismatches 1; Indels 0; Gaps 0;
Db	74	ICVNPRAKWLQ	84
QY	2	ICLDPRKQWQ	12
RESULT	6	PRELIMINARY;	PRT: 119 AA.
ID	000175		
AC	000175;		
DT	01-JUL-1997	(TREMBLREL. 04, CREATED)	
DT	01-JUL-1997	(TREMBLREL. 04, LAST SEQUENCE UPDATE)	
DT	01-NOV-1998	(TREMBLREL. 08, LAST ANNOTATION UPDATE)	
DE	MPFE-2.		
OS	HOMO SAPIENS (HUMAN).		
OC	EUAROTIA; METAEOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;		
OC	CATARRHINI; HOMINIDAE; HOMO.		
RN	[1]		
RP	SEQUENCE FROM N.A.		
RA	PAEEL V.P., KREIDER B.L., LI Y., LI H., LEUNG K., SALCEDO T.,		
RA	MADELLI B., PIRPALIA V., GENTZ S., THOTAKURA R., PAMELEE D.,		
RA	GENTZ R., GAOTTA G.,		
RA	J. EXP. MED. 0:0-0(0).		
DR	EMBL: U85768; G1916252; -		
DR	PFAM: PF00048; 118; 1.		
SO	SEQUENCE 119 AA; 13119 MW; CDF526F0 CRC32;		
Query Match	67.3%;	Score 68;	DB 4; Length 119;
Best Local Similarity	58.3%;	Pred. No. 1.79e-02;	
Matches	7;	Conservative	3; Mismatches 2; Indels 0; Gaps 0;
Db	72	QFCDDPKQEWQ	83
QY	1	EICLDPKQKWQ	12
RESULT	7	PRELIMINARY;	PRT: 97 AA.
ID	088093		
AC	088093;		
DT	01-NOV-1998	(TREMBLREL. 08, CREATED)	
DT	01-NOV-1998	(TREMBLREL. 08, LAST SEQUENCE UPDATE)	
DT	01-NOV-1998	(TREMBLREL. 08, LAST ANNOTATION UPDATE)	
DE	CC CHEMOKINE ST38 PRECURSOR.		
GN	LARC.		
OS	MUS MUSCULUS (MOUSE).		
OC	EUAROTIA; METAEOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;		
OC	RODENTIA; SCUROGNATHI; MURIDAE; MURINAE; MUS.		
RN	[1]		
RP	SEQUENCE FROM N.A.		
RA	UTANS-SCHWEITZ U., LOREZ H., KLINKERT W.E.F., DA SILVA J.,		
RA	LESSLAUER W.,		
RT	"A novel rat CC chemokine, identified by targeted differential display, is upregulated in brain inflammation.";		
RL	J. NEUROIMMUNOL. 0:0-0(1998).		
RN	[2]		
RP	SEQUENCE FROM N.A.		
RA	VILLARES R.;		
RL	SUBMITTED (JUL-1998) TO EMBL/GENBANK/DBJ DATA BANKS.		
DR	EMBL: AF053313; G3551819; -		
DR	EMBL: AJ007862; E1312757; -		
FW	SIGNAL.		
TF	SIGNAL.	1	27
			POTENTIAL.

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FT CHAIN 28 97 CC CHEMOKINE ST38.
SQ SEQUENCE 97 AA: 10826 MW: 053405BD CRC32:
Query Match 66.3%; Score 67; DB 11; Length 97;
Best Local Similarity 60.0%; Pred. No. 2.94e-02;
Matches 6; Conservative 3; Mismatches 1; Indels 0; Gaps 0.

Db 74 VCADPKQNV 83
: 1 1 1 1 1 : 1
QY 2 ICIDPKQKWI 11

RESULT 8
ID 000585 PRELIMINARY; PRT; 134 AA.
AC 000585;
DT 01-JUL-1997 (TREMBLREL. 04, CREATED)
DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE BETA CHEMOKINE EXODUS-2.
OS HOMO SAPIENS (HUMAN).
OC EDUAROT; METAEOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CAFARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RA HROMAS R. A., GRAY P., KLEMSZ M., FIFE K., BROOMEYER H. J.
RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 97400322.
RA HEDRICK J. A., ZLOTNIK A.;
RT "Identification and characterization of a novel beta chemokine
RT containing six conserved cysteines."
RL J. IMMUNOL. 159:1589-1593(1997).
RN [3]
RP SEQUENCE FROM N.A.
RA HEDRICK J. A., ZLOTNIK A.;
RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [4]
RP SEQUENCE FROM N.A.
RA NISHIMURA M., IWAI T., HIESHIMA K., KUSUDA J., RIDANPAA M., TAKAGI S.,
RA NISHIMURA M., KAKITAKI M., NOMITAMA H., YOSHIO O.;
RL SUBMITTED (AUG-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: U88320; G2196920; -.
DR EMBL: AF001979; G2624925; -.
DR EMBL: AB002409; D1022673; -.
DR PFAM: PF00048; I18; 1.
SO SEQUENCE 134 AA; 14646 MW; FE86A239 CRC32;

Query Match 66.3%; Score 67; DB 4; Length 134;
Best Local Similarity 58.3%; Pred. No. 2.94e-02;
Matches 7; Conservative 3; Mismatches 2; Indels 0; Gaps 0.

Db 73 ELCADPKELVQ 84
: 1 1 1 1 1 : 1
QY 1 EICIDPKQKWI 12

RESULT 9
ID 088430 PRELIMINARY; PRT; 92 AA.
AC 088430;
DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE CC CHEMOKINE ABCD-1.
OS MUS MUSCULUS (MOUSE).
OC EDUAROT; METAEOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
OC RODENTIA; SCIROGNATHI; MURIDAE; MURINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RX TISSUE-LIVER;
RX MEDLINE: 9833531.
RA SCHANELT C., PARDALI E., SALUSTO F., SPELETAS M., RUEDL C.,
RA SHIMIZU T., SEIDL T., ANDERSSON J., MELCHERS F., ROLINK A. G.,

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RA SIDERAS P.;
 RT "Activated murine B lymphocytes and dendritic cells produce a novel
 RT CC chemokine which acts selectively on activated T cells."
 RL J. EXP. MED. 188:451-463(1998).
 DR EMBL: AF052505; G3378116; -.
 SQ SEQUENCE 92 AA; 10302 MW; BC7219A0 CRC32;

Query Match 65.3%; Score 66; DB 11; Length 92;
 Best Local Similarity 54.5%; Pred. No. 4.81e-02;
 Matches 6; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Db 74 DICADPROVWV 84
 :|||:|:|:
 QY 1 EICLDPKQKWI 11

RESULT 10
 ID 073912 PRELIMINARY: PRT: 104 AA.
 AC 073912:
 DT 01-AUG-1998 (TREMBLREL. 07, CREATED)
 DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
 DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
 DE K60 PROTEIN PRECURSOR.
 GN K60.
 OS GALLUS GALLUS (CHICKEN).
 CC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; ARCHOSAURIA; AVES;
 CC NEOGNATHAE; GALLIFORMES; PHASIANIDAE; PHASIANINAE; GALLUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-MACROPHAGE LIKE;
 RA SICK C.;
 RL SUBMITTED (AUG-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: Y14971; E1295103; -.
 KW SIGNAL.
 FT CHAIN 21 104 POTENTIAL.
 FT SIGNAL. K60 PROTEIN.
 SQ SEQUENCE 104 AA; 11199 MW; 40C2EF8A CRC32;

Query Match 64.4%; Score 65; DB 13; Length 104;
 Best Local Similarity 54.5%; Pred. No. 7.83e-02;
 Matches 6; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

Db 75 EYCLDPTAPV 85
 :|||:|:|:
 QY 1 EICLDPKQKWI 11

RESULT 11
 ID 014745 PRELIMINARY: PRT: 80 AA.
 AC 014745:
 DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
 DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
 DT 01-NOV-1996 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE LD78 ALPHA BETA PRECURSOR (FRAGMENT).
 OS HOMO SAPIENS (HUMAN).
 CC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
 CC CATARRHINI; HOMINIDAE; HOMO.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-BRAIN;
 RA ISHIZUKA K., IGATA-YI R., NARUSE K., NAKASHIMA H., OHUCHI K.,
 RA KATSURAGI S., KIN Y., OHMOTO Y., NOMIYAMA H., IIO M., MIURA R.,
 RA MIYAKAWA T.;
 RL SUBMITTED (AUG-1995) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: D63785; G961440; -.
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 DR PFAM: PF00048; I18; 1.
 KW SIGNAL.
 FT NON_TER 1 1
 FT SIGNAL. <1 16 POTENTIAL.
 FT CHAIN 17 >80 LD78 ALPHA BETA.
 FT NON_TER 80 80
 SQ SEQUENCE 80 AA; 8857 MW; 3F87F1C6 CRC32;

Query Match 62.4%; Score 63; DB 4; Length 80;
 Best Local Similarity 41.7%; Pred. No. 2.05e-01;
 Matches 5; Conservative 4; Mismatches 3; Indels 0; Gaps 0;

Db 65 OYCADSEWVQ 76
 :|||:|:|:
 QY 1 EICLDPKQKWIQ 12

RESULT 12
 ID 09664 PRELIMINARY: PRT: 95 AA.
 AC 09664:
 DT 01-MAY-1997 (TREMBLREL. 03, CREATED)
 DT 01-MAY-1997 (TREMBLREL. 03, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE CHEMOKINE EXODUS.
 OS HOMO SAPIENS (HUMAN).
 CC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
 CC CATARRHINI; HOMINIDAE; HOMO.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-PANCREAS;
 RX MEDLINE: 97275143.
 RA BROMAS R., GRAY P.W., CHANTREY D., GODISKA R., KRATHWOHL M., FIFE K.,
 RA BELL G.I., TAKEDA J., ARONICA S., GORDON M., COOPER S., BROXMEYER H.E.,
 RA KLEINSZ M.J.;
 RL BLOOD 89:3315-3322(1997).
 DR EMBL: U64197; G1778717; -.
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 DR PFAM: PF00048; I18; 1.
 SQ SEQUENCE 95 AA; 10691 MW; 1526B4C0 CRC32;

Query Match 62.4%; Score 63; DB 4; Length 95;
 Best Local Similarity 50.0%; Pred. No. 2.05e-01;
 Matches 5; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Db 72 VCANPKQTV 81
 :|||:|:|:
 QY 2 ICLDPKQKWI 11

RESULT 13
 ID P97884 PRELIMINARY: PRT: 96 AA.
 AC P97884:
 DT 01-MAY-1997 (TREMBLREL. 03, CREATED)
 DT 01-MAY-1997 (TREMBLREL. 03, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE CC CHEMOKINE EXODUS.
 OS RATTUS NORVEGICUS (RAT).
 CC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; RODENTIA;
 CC SCIROGNATHI; MURIDAE; MURINAE; RATTUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-SPRAGUE-DAWLEY;
 RA KELLER G.S., MACIEJEWSKI-LENOIR D., LEE E.D., MAKI R.A.;
 RL SUBMITTED (FEB-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [2]
 RP SEQUENCE FROM N.A.
 RC STRAIN-FISHER 344; TISSUE-BRAIN;
 RA UTANS-SCHNEITZ U., LOREZ H., KLINKERT W.E.F., DA SILVA J.,
 RA LESSLAUDER W.;
 RL "A novel rat CC chemokine, identified by targeted differential
 RT display, is upregulated in brain inflammation."
 RL J. NEUROIMMUNOL. 0:0-0(1998).
 DR EMBL: U90447; G1899246; -.
 DR EMBL: AF053312; G3531817; -.
 DR PFAM: PF00048; I18; 1.
 KW SIGNAL.
 SQ SEQUENCE 96 AA; 10875 MW; 3FC09DD8 CRC32;

Query Match 62.4%; Score 63; DB 11; Length 96;

Best Local Similarity 60.0%; Pred. No. 2.05e-01;
Matches 6; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 73 VCADPQKQWV 82
:|||||:
QY 2 ICLDPKQKWI 11

RESULT 14
ID 043927 PRELIMINARY; PRT; 109 AA.
AC 043927;
DT 01-JUN-1998 (TREMBLREL. 06, CREATED)
DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE CXC CHEMOKINE PRECURSOR.
GN BCA-1.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
CC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE; 98130629.
RA LEGIER D.F., LOETSCHER M., STUBER ROOS R., CLARK-LEWIS I.,
RA BAGGIOLINI M., MOSER B.;
RT "B cell-attracting chemokine 1, a human CXC chemokine expressed in
RT lymphoid tissues, selectively attracts B lymphocytes via BLR1/CXCR5.";
RL J. Exp. Med. 187:655-660(1998).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE; 98146056.
RA GUNN M.D., NGO V.N., ANSEL K.M., EKLAND E.H., CYSTER J.G.,
RA WILLIAMS L.T.;
RT "A B-cell-homing chemokine made in lymphoid follicles activates
RT Burkitt's lymphoma receptor-1.";
RL NATURE 391:799-803(1998).
RN [3]
RP SEQUENCE FROM N.A.
RA NAOLITANO M., SPINETTI G., GAETANO C., CAPOGROSSI C.M.;
RL SUBMITTED (OCT-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; AJ002211; E1249325; -;
DR EMBL; AF044197; G2911376; -;
DR EMBL; AF029894; G3169814; -;
KW SIGNAL.
FT SIGNAL. 1 22 POTENTIAL.
FT CHAIN 23 109 POTENTIAL.
SQ SEQUENCE 109 AA; 12664 MW; BE5A46BC CRC32;

Query Match 62.4%; Score 63; DB 4; Length 109;
Best Local Similarity 54.5%; Pred. No. 2.05e-01;
Matches 6; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

Db 75 VCVDPQAEWQ 85
:|||||:
QY 2 ICLDPKQKWI 12

RESULT 15
ID 015467 PRELIMINARY; PRT; 120 AA.
AC 015467;
DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE IL-10-INDUCIBLE CHEMOKINE.
GN ILINCK OR SCYA16.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
CC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RA HEDRICK J.A., GORMAN D., ZLOTNIK A.;
RL SUBMITTED (NOV-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)

RC TISSUE-LIVER;
RA SHODDAI K., HIESHIMA K., FUKUDA S., IIO M., MIURA R., IMAI T.,
RA YOSHIE O., NOMIYAMA H.;
RL BIOCHIM. BIOPHYS. ACTA 0:0-0(1998).
RN [3]
RP SEQUENCE FROM N.A.
RA NOMIYAMA H.;
RT "Structure of a region of 181 kb containing five CC chemokine genes.";
RL SUBMITTED (AUG-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [4]
RP SEQUENCE FROM N.A.
RX MEDLINE; 98308096.
RA YOUN B.S., ZHANG S., BROOMEYER H.E., ANTOL K., FRASER M.J. JR.,
RA HANOC G., KWON B.S.;
RT "Isolation and characterization of LMC, a novel lymphocyte and
RT monocyte chemoattractant human CC chemokine, with myelosuppressive
RT activity.";
RL BIOCHEM. BIOPHYS. RES. COMMUN. 247:217-222(1998).
DR EMBL; U91746; G2581781; -;
DR EMBL; AB007454; D1024963; -;
DR EMBL; AF088219; G3719365; -;
DR EMBL; AF055467; G3395776; -;
DR PFAM; PF00048; 118; 1.
KW SIGNAL.
SQ SEQUENCE 120 AA; 13600 MW; A079DP66 CRC32;

Query Match 62.4%; Score 63; DB 4; Length 120;
Best Local Similarity 41.7%; Pred. No. 2.05e-01;
Matches 5; Conservative 5; Mismatches 2; Indels 0; Gaps 0;

Db 74 EYCTNPNDWDVQ 85
:|:|:|:|:
QY 1 EICLDPKQKWI 12

RESULT 16
ID 093442 PRELIMINARY; PRT; 101 AA.
AC 093442;
DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE LFCA-1 PROTEIN PRECURSOR.
OS LAMPEIRA FLUVIATILIS (RIVER LAMPREY).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; CEPHALASPIDOMORPHI;
CC PETROMYZONTIFORMES; PETROMYZONTIDAE; LAMPEIRA.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-LEUKOCYTES;
RA NAWKSHIN A.M., MECHETTINA L.V., ALABYEV B.Y., TARANIN A.V.;
RT "Identification of the interleukin 8 homologue in lamprey (Lampetra
RT fluviatilis): early evolutionary divergence of chemokines.";
RL SUBMITTED (JUL-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; AJ231072; E1313821; -;
KW SIGNAL.
FT SIGNAL. 1 22 POTENTIAL.
FT CHAIN 23 101 LFCA-1 PROTEIN.
SQ SEQUENCE 101 AA; 11095 MW; EA41E20F CRC32;

Query Match 60.4%; Score 61; DB 13; Length 101;
Best Local Similarity 41.7%; Pred. No. 5.27e-01;
Matches 5; Conservative 4; Mismatches 3; Indels 0; Gaps 0;

Db 73 QICLNDAPWVR 84
:|||||:
QY 1 EICLDPKQKWI 12

RESULT 17
ID 093238 PRELIMINARY; PRT; 101 AA.
AC 093238;
DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)


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RT genes by KSHV ".
RL SCIENCE 274:1739-1744(1996).
[2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 97121480.
RA RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
RT "Nucleotide sequence of the Kaposi sarcoma-associated herpesvirus
  (HHV8)".
RL PROC. NATL. ACAD. SCI. U.S.A. 93:14862-14867(1996).
[3]
RP SEQUENCE FROM N.A.
RA RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
RT PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
RL SUBMITTED (OCT-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
[4]
RP SEQUENCE FROM N.A.
RA NICHOLAS J., RUVOLO V.R., BURNS W.H., SANDFORD G., WAN X., CIUFO D.,
RT HENDRICKSON S., GUO H.G., HAYWARD G.S., REITZ M.S.;
RL SUBMITTED (NOV-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
[5]
RP SEQUENCE FROM N.A.
RA RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
RT PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
[6]
RP SEQUENCE FROM N.A.
RX MEDLINE: 97296220.
RA NEIPEL F., ALBRECHT J.C., FLECKENSTEIN B.;
RT "Cell-homologous genes in the Kaposi's sarcoma-associated rhadinovirus
  human herpesvirus 8: determinants of its pathogenicity?";
RL J. VIROL. 71:4187-4192(1997).
[7]
RP SEQUENCE FROM N.A.
RA SUN R., LIN S.-F., MILLER G.;
RL SUBMITTED (SEP-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: U75698; G178266; -.
DR EMBL: U74585; G1658273; -.
DR EMBL: U93872; G2246346; -.
DR EMBL: U71366; G3551763; -.
DR PFAM: PF00048; 118; 1.
KW HYPOTHETICAL PROTEIN.
SQ SEQUENCE 95 AA; 10485 MW; 5283348D CRC32;

Query Match 57.4%; Score 58; DB 14; Length 95;
Best Local Similarity 41.7%; Pred. No. 2.10e+00;
Matches 5; Conservative 4; Mismatches 3; Indels 0; Gaps 0;

Db 74 QICADPSKNVR 85
QY 1 EICLDPKQKWIQ 12

RESULT 22
ID 067634 PRELIMINARY; PRT; 203 AA.
AC 067634;
DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE ECO Q PROTEIN (FRAGMENT)
OS GALID HERPESVIRUS TYPE 1.
OC VIRUSES; DSDNA VIRUSES; NO RNA STAGE; HERPESVIRIDAE;
ALPHAHERPESVIRINAE; VARICELLOVIRUS.
[1]
RP SEQUENCE FROM N.A.
RC STRAIN-GA;
RX MEDLINE: 96074534.
RA PENG Q., ZENG M., BHUIYAN Z.A., UBUKATA E., TANAKA A., NONOYAMA M.,
RT SHIRAZI Y.;
RT "Isolation and characterization of Marek's disease virus (MDV) cDNAs
  mapping to the BamHI-T2, BamHI-Q2, and BamHI-L fragments of the MDV
  genome from lymphoblastoid cells transformed and persistently infected
  with MDV."

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RL VIROLOGY 213:590-599(1995).
DR EMBL: U34966; G1185444; -.
DR PFAM: PF00048; 118; 1.
FT NON_TER
SQ SEQUENCE 203 AA; 23132 MW; 887D04C3 CRC32;

Query Match 57.4%; Score 58; DB 14; Length 203;
Best Local Similarity 45.5%; Pred. No. 2.10e+00;
Matches 5; Conservative 3; Mismatches 3; Indels 0; Gaps 0;

Db 145 VCVDPEAPWQ 155
QY 2 ICDDPKQKWIQ 12

RESULT 23
ID P78423 PRELIMINARY; PRT; 397 AA.
AC P78423; 000672;
DT 01-MAY-1997 (TREMBLREL. 03, CREATED)
DT 01-MAY-1997 (TREMBLREL. 03, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE CX3C CHEMOKINE PRECURSOR.
GN A-1525.2.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
[1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 97177111.
RA BAZAN J.F., BACON K.B., HARDIMAN G., WANG W., SOO K., ROSSI D.,
RT GREAVES D.R., ZLOJNIR A., SCHALL T.J.;
RT "A new class of membrane-bound chemokine with a CX3C motif.";
RL NATURE 385:640-644(1997).
[2]
RP SEQUENCE FROM N.A.
RA ADAMS M.D., IOFTUS B.J., ZHOU L., CROSBY M., FUHRMANN J., MASON T.M.,
RT BRANDON R., KIM U.J., KERLAVAGE A.R., VENTER J.C.;
RT "Homo sapiens Chromosome 16 BAC clone C1987SK-A-1525.";
RL SUBMITTED (JUN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: U91835; G1899259; -.
DR EMBL: U84487; G1888523; -.
DR EMBL: AC004382; G3252821; -.
DR PFAM: PF00048; 118; 1.
KW SIGNAL.
FT SIGNAL.
FT CHAIN 25 397
SQ SEQUENCE 397 AA; 42202 MW; C8093D7D CRC32;

Query Match 57.4%; Score 58; DB 4; Length 397;
Best Local Similarity 50.0%; Pred. No. 2.10e+00;
Matches 5; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Db 73 FCADPKQWV 82
QY 2 ICDDPKQKWI 11

RESULT 24
ID 082387 PRELIMINARY; PRT; 535 AA.
AC 082387;
DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE PUTATIVE CELL DIVISION PROTEIN.
GN T2416.22.
OS ARABIDOPSIS THALIANA (MOUSE-EAR CRESS).
OC EUKARYOTA; VIRIDIPHYTES; CHAROPHYTA/EMBRYOPHYTA GROUP; EMBRYOPHYTA;
OC TRACHEOPHYTES; EUPHYLOPHYTES; SPERMATOPHYTA; MAGNOLIOPHYTA;
OC EUDICOTYLEDONS; ROSIDAE; CAPPARALES; BRASSICACEAE; ARABIDOPSIS.
[1]
RP SEQUENCE FROM N.A.
RC STRAIN-CV. COLUMBIA;
RA ROUNSLEY S.D., LIN X., KAUL S., SHEA T.P., FUJII C.Y., MASON T.M.,

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RA SHEN M., RONNING C.M., FRASER C.M., SOMERVILLE C.R., VENTER J.C.;
RT "Arabidopsis thaliana chromosome II BAC T27A16 genomic sequence."
RL SUBMITTED (SEP-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; AC005496; G3582344; -
KM CELL DIVISION.
SO SEQUENCE 535 AA; 59484 MW; 8AF744C7 CRC32;

Query Match 57.4%; Score 58; DB 10; Length 535;
Best Local Similarity 55.6%; Pred. No. 2.10e+00;
Matches 5; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 97 VOLEVSKW 105
||:||||
QY 2 ICLDPKOKW 10

RESULT 25 PRELIMINARY; PRT; 93 AA.
AC 000626;
UT 01-JUL-1997 (TREMBREL. 04, CREATED)
DT 01-JUL-1997 (TREMBREL. 04, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBREL. 08, LAST ANNOTATION UPDATE)
DE MACROPHAGE-DERIVED CHEMOKINE PRECURSOR.
CN MDC OR A-15255.1
OS HOMO SAPIENS (HUMAN).
OC EURAROTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RA GODISKA R., CHANTRY D., RAPORT C.J., SOZZANI S., ALLAVENA P.,
RA MANTOVANI A., GRAY P.W.;
RL J. EXP. MED. 185:0-0(0).
RN [2]
RP SEQUENCE FROM N.A.
RA CHANG M.S., MCNINCH J., ELIAS III C., MANTHEY C.L., GROSSHANS D.,
RA MENG T., BOONE T., ANDREW D.P.;
RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [3]
RP SEQUENCE FROM N.A.
RA ADAMS M.D., LOFTUS B.J., ZHOU L., CROSBY M., FUHRMANN J., MASON T.M.,
RA BRANDON R., KIM U.J., KERLAVAGE A.R., VENTER J.C.;
RT "Homo sapiens chromosome 16 BAC clone CIT987SK-A-15255."
RL SUBMITTED (JUN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; U83171; G1931581; -
DR EMBL; U83239; G2062425; -
DR EMBL; AC004382; G3252820; -
DR PFAM; PF00048; 118; 1.
KM SIGNAL.
FT SIGNAL. 1 24 POTENTIAL.
FT CHAIN 25 93 MACROPHAGE-DERIVED CHEMOKINE.
SO SEQUENCE 93 AA; 10580 MW; 65E6302 CRC32;

Query Match 56.4%; Score 57; DB 4; Length 93;
Best Local Similarity 54.5%; Pred. No. 3.29e+00;
Matches 6; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

Db 74 EICADPRVWV 84
||||:|
QY 1 EICLDPKOKW 11

RESULT 26 PRELIMINARY; PRT; 133 AA.
AC 009002;
DT 01-JUL-1997 (TREMBREL. 04, CREATED)
DT 01-JUL-1997 (TREMBREL. 04, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBREL. 08, LAST ANNOTATION UPDATE)
DE SMALL INDUCIBLE CYTOKINE A21 (TCA4).
GN SCYA21.
OS MUS MUSCULUS (MOUSE).
OC EURAROTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCUROGNATHI; MURIDAE; MURINAE; MUS.
RN [1]

RP SEQUENCE FROM N.A.
RC TISSUE-THYMUS;
RA TANABE S., LU Z., LUO Y., QUACKENBUSH E.J., BERMAN M.A.,
RA COLLINS-RACIE L.A., MI S., REILLY C., LO D., JACOBS K.A., DORF M.E.;
RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE; 97400322.
RA HEDRICK J.A., ZLOTNIK A.;
RT "Identification and characterization of a novel beta chemokine
containing six conserved cysteines."
RL J. IMMUNOL. 159:1589-1593(1997).
RN [3]
RP SEQUENCE FROM N.A.
RA HEDRICK J.A., ZLOTNIK A.;
RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; AF006637; G2209189; -
DR EMBL; AF001980; G2624927; -
DR MGD; MGI:1097677; SCYA21.
DR PFAM; PF00048; 118; 1.
SQ SEQUENCE 133 AA; 14558 MW; C0532523 CRC32;

Query Match 56.4%; Score 57; DB 11; Length 133;
Best Local Similarity 41.7%; Pred. No. 3.29e+00;
Matches 5; Conservative 4; Mismatches 3; Indels 0; Gaps 0;

Db 73 EICANPEEGWQ 84
||:|:|:|
QY 1 EICLDPKOKW 12

RESULT 27 PRELIMINARY; PRT; 133 AA.
AC 009006;
DT 01-JUL-1997 (TREMBREL. 04, CREATED)
DT 01-AUG-1998 (TREMBREL. 07, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBREL. 08, LAST ANNOTATION UPDATE)
DE BETA CHEMOKINE EXODUS-2.
GN SCYA21.
OS MUS MUSCULUS (MOUSE).
OC EURAROTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCUROGNATHI; MURIDAE; MURINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-TOTAL FETUS;
RX MEDLINE; 97444139.
RA HROMAS R., KIM C.H., KLEMSZ M., KRATZWHL M., FIFE K., COOPER S.,
RA SCHNITZLEIN-BICK C., BROXMEYER H.E.;
RT "Isolation and characterization of Exodus-2, a novel C-C chemokine
with a unique 37-amino acid carboxyl-terminal extension."
RL J. IMMUNOL. 159:2554-2558(1997).
RN [2]
RP SEQUENCE FROM N.A.
RC TISSUE-TOTAL FETUS;
RA HROMAS R.A.;
RL SUBMITTED (JUN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; U88322; G3169697; -
DR MGD; MGI:1097677; SCYA21.
DR PFAM; PF00048; 118; 1.
SQ SEQUENCE 133 AA; 14600 MW; B34A5E22 CRC32;

Query Match 56.4%; Score 57; DB 11; Length 133;
Best Local Similarity 41.7%; Pred. No. 3.29e+00;
Matches 5; Conservative 4; Mismatches 3; Indels 0; Gaps 0;

Db 73 EICANPEEGWQ 84
||:|:|:|
QY 1 EICLDPKOKW 12

RESULT 28 PRELIMINARY; PRT; 331 AA.
AC 017348;
ID 017348;
RN [1]

DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
 DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE H42K12.2 PROTEIN.
 GN H42K12.2.
 OS CAENORHABDITIS ELEGANS.
 OC EUKARYOTA; METAZOA; NEMATODA; SECERNENTEA; RHABDITIA; RHABDITIDA;
 OC RHABDITIA; RHABDITOIDEA; RHABDITIDAE; PELODERINAE; CAENORHABDITIS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-BRISTOL N2;
 RX MEDLINE: 94150718.
 RA WILSON R., AINSCOUGH R., ANDERSON R., BAYNES C., BERKS M., BONFIELD J.,
 RA BURTON J., CONNELL M., COOPER T., COOPER J., COULSON A., CRAXTON M.,
 RA DEAR S., DU Z., DURBIN R., FAVELLO A., FULLON L., GARDNER A., GREEN P.,
 RA HAWKINS T., HILLIER L., JIER M., JOHNSTON L., JONES M., KERSHAW J.,
 RA KRISTEN J., LAISTER N., LATREILLE P., LIGHTNING J., LLOYD C.,
 RA MCMURRAY A., MORTIMORE B., O'CALLAGHAN M., PARSONS J., PERCY C.,
 RA REFFEN L., ROOPRA A., SAUNDERS D., SHONKKEEN R., SMALDON N., SKITH A.,
 RA SONNENAMER E., STADEN R., SUJSTON J., THIERI-MIES J., THOMAS K.,
 RA VAUDIN M., VAUGHAN K., WATERSTON R., WATSON A., WEINSTOCK L.,
 RA WILKINSON-SPROAT J., WOHLDMAN P.;
 RA "2.2 Mb of contiguous nucleotide sequence from chromosome III of C.
 RT elegans.";
 RL NATURE 368:32-38(1994).
 RN [2]
 RP SEQUENCE FROM N.A.
 RC STRAIN-BRISTOL N2;
 RA MAGGI L., HARPER M.;
 RL SUBMITTED (OCT-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [3]
 RP SEQUENCE FROM N.A.
 RC STRAIN-BRISTOL N2;
 RA WATERSTON R.;
 RL SUBMITTED (SEP-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: AF026207; G2435555; -;
 SQ SEQUENCE 331 AA; 36627 MW; EA4C85EB CRC32;

Query Match 56.4%; Score 57; DB 5; Length 331;
 Best Local Similarity 40.0%; Pred. No. 3.29e+00;
 Matches 4; Conservative 4; Mismatches 2; Indels 0; Gaps 0;

Db 126 NCCLSPERRW 135
 QY 1 EICLDPKRW 10

RESULT 29
 ID 099126 PRELIMINARY; PRT; 760 AA.
 AC 099126;
 DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
 DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
 DT 01-MAY-1997 (TREMBLREL. 03, LAST ANNOTATION UPDATE)
 DE CHITIN SYNTHETASE I.
 GN CHS1.
 OS USTILAGO MAYDIS (SMUT FUNGUS).
 OC EUKARYOTA; FUNGI; BASIDIOMYCOTA; USTILAGINOMYCETES;
 OC USTILAGINOMYCETIDAE; USTILAGINALES; USTILAGINACEAE; USTILAGO.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-RK32 (A2B3);
 RA XOCOMOSTLE-CAZARES B., LEON-RAMIREZ C., RUIZ-HERRERA J.;
 RL MICROBIOLOG 142:377-387(1996).
 DR EMBL: X87748; G861151; -;
 SQ SEQUENCE 760 AA; 85181 MW; 2F2AC4C9 CRC32;

Query Match 56.4%; Score 57; DB 3; Length 760;
 Best Local Similarity 60.0%; Pred. No. 3.29e+00;
 Matches 6; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

Db 483 EICATRGKW 492
 QY 1 EICLDPKRW 10

RESULT 30
 ID 093599 PRELIMINARY; PRT; 806 AA.
 AC 093599;
 DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE TRANSCRIPTION FACTOR.
 GN STAT3.
 OS BRACHYDANTIO RERIO (ZEBRAFISH) (ZEBRA DANIO).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; ACTINOPTERYGII; NEOPTERYGII;
 OC TELEOSTEI; EUTELEOSTEI; OSTARIOPHYSI; CYPRINIFORMES; CYPRINOIDEA;
 OC CYPRINIDAE; RASBORINAE; DANIO.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA OATES A.C.;
 RL THESTS (1998), UNIVERSITY OF MELBOURNE, AUSTRALIA.
 DR EMBL: AU005693; E1326184; -;
 SQ SEQUENCE 806 AA; 92151 MW; 5CEB46E0 CRC32;

Query Match 56.4%; Score 57; DB 13; Length 806;
 Best Local Similarity 54.5%; Pred. No. 3.29e+00;
 Matches 6; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

Db 258 NICDLRLWTW 268
 QY 1 EICLDPKRW 11

Search completed: Thu Apr 1 07:45:10 1999
 Job time : 30 secs.

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